POLICY AND DEVELOPMENT:
THE IMPACT OF GROWTH ON URBAN HOUSING IN SAUDI ARABIA
TOWARDS A SOLUTION FOR THE LOW-INCOME

by

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ABSTRACT

Housing problems for the low-income portions of the population in Saudi Arabia have developed in the past fifteen years to crisis levels. The rapid urbanization process in the major cities has transformed the urban environments into sprawling and unplanned physical settings. This has had a particular effect on the form of urban settlements in that housing designs and neighborhood patterns are being quickly implemented without proper attention to the real needs and preferences of the majority of the population in the urban centers. As a result many residential complexes are alienating to their residents. Further, with the deficiencies present in government development efforts, mainly in the institutional organization of agencies involved in the housing effort, the public sector has not sufficiently supplied units to the low and moderate income households that are badly in need of assistance. This has resulted in the growth of slum areas and squatter settlements.

This study examines government policies and development efforts in an attempt to understand why such uncontrolled development has taken place and why the public sector programs have not supplied adequate amounts of low and moderate income housing to the market. It discusses the housing market and urban housing situation, government policies, objectives and programs that have taken place or are planned during the three development plans. It, in the conclusion section, offers possible alternatives and options which might be suitable to adapt in future housing programs, emphasizing the need for more government control and coordination in private sector development, as well as an overall re-examination of planning and implementation approaches to public-sector housing programs.

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INTRODUCTION

The purpose of this study on housing policy and development in Saudi Arabia will be to demonstrate that the government has had no firm strategy to create a viable low-income housing program. Seeing the vast amount of capital investment and financial credit made available for the purpose of housing development, cost has not been a constraint. Rather it has been the way this capital has been distributed that has brought about an inequitable housing development effort.

This thesis will question the policy of the government which has approached the housing crisis through a strategy of supplying the private sector with huge amounts of loosely monitored credit in order to increase supply on the housing market. What has resulted is the construction of hundreds of thousands of modern, and in many cases luxury, apartments and villas for the higher-income portion of the population which now have reached an oversaturation on the urban market. The effective demand by low and even middle-income households, who still find housing unaffordable and in short supply, has not been met. The outcome therefore has been that the low-income continue to live in overcrowded and substandard stock or improvised dwellings in slum and squatter areas in the major cities. Furthermore, the policy of the government to supply the private sector with such loans has led to inflated housing costs, poor quality construction and land speculation. The government has basically lacked control over the housing construction industry.
such that sharp imbalances have developed between the abundant financial resources available and the materials, labor and appropriate technology which has been more difficult to obtain. Also, the government's inability to control growth through effective land-use measures and efficient and comprehensive town-planning has resulted in urban sprawls, uneven distribution of infrastructure and city resources, and overall chaos in the major urban areas. We have seen randomly constructed modern high-rise structures along side of low-rise cluster housing which have been poorly coordinated with the growth patterns of the individual municipalities.

The thesis will also question the government's design of public housing programs to provide low and moderate income housing on the market. For the most part, the public projects have been ill-designed and badly implemented which has resulted in insignificant amounts of low-income housing units actually provided by the public sector. The reasons for the failure of the government to plan and administer an adequate public sector program will be examined.

Questions Raised

From the rapid urban growth and immense infrastructure development projects, terrible strains have been put on the urban environments in Saudi Arabia's largest cities. Two major questions come to mind which this study will examine.

The first question deals with the overall process of urbanization and the form of human settlements that have resulted in the process. The government's stated policy to preserve the cultural and social values of the Saudi society has not been reflected in
many aspects of the development effort. We have seen a dramatic change in the form of human settlements and in the general lifestyle in the last fifteen years. We must look at the basic government objective in this rapid development process to examine its intention for the form of the changing urban environment. As is understandable, the government's initial objective of massive infrastructure development at such an accelerated rate was to create a framework where industrialization could take place to bring about a degree of self-sufficiency and independence from the oil sector in order to support future economic development in Saudi Arabia. This is a well-founded policy, but why was it necessary to proceed so quickly while indeed the impact of such growth and the influx of such a great number of foreign laborers to engage in the construction effort would obviously put incredible strains on the urban centers, especially in the area of housing? We have seen that the urban environments have suffered because of this and for the most part, traditional sections of the major cities have been destroyed in the rapid urbanization process. We must therefore ask why were not the social costs of demolishing the traditional neighborhoods weighed against the benefits of the rapid development, and why was not a policy developed to pace development at more manageable stages in order to avoid bottlenecks, labor and material shortages, and other problems which made difficult the efficient and effective planning and implementation of projects? It seems, in regard to housing, that the government planners facing a housing crisis thought in terms of numbers of units to be constructed, and not in the shape of human settlements.
Of course we must recognize that the previous lifestyle in the cities would be disrupted by any modernization process, but it seems very little attention was paid to at least attempting to preserve important cultural traditions regarding housing design and neighborhood patterns. This, I think, is why we saw massive demolition of the older sections of the cities, replaced with modern construction, and why there was not an active effort to upgrade and preserve traditional structures and the older sections of the cities. Overall, the idea of keeping the neighborhoods intact has not been a major concern of the planners.

The second question I am raising is more focussed. What is the government's attitude towards the low-income portion of the population in terms of providing housing that is suitable to their needs, and how is the government prepared to deal with the growing slum areas? We have seen since the early 1970s large growth of squatter and low-income areas in the major cities. Most of the dwellings in these area are either substandard older stock or improvised dwellings. The areas have received little infrastructure and city services. I will examine possible reasons for not providing adequate services to these areas, and what alternatives are workable for the planners to consider.

Towards a Solution to Low-Income Housing Problems

A good portion of this study will criticize policy and programs that have been initiated for low-income households. It will look at where the problems lie and what possible options can be taken to deal with these problems. Basically, I will examine
the institutional framework in place to deal with housing, its deficiencies, and where it can be strengthened to produce more efficient and effective projects. Hopefully, if such steps are taken, we can move towards a solution to the low-income housing problems that still exist today.
The following pages will present some background information that might bring a better understanding of the housing situation in Saudi Arabia. It is important to note particular geographic, demographic, cultural and economic factors that influence housing and the form of human settlements in the Kingdom.

Regions and Climate

There are five regions in Saudi Arabia: north, east, west, central and southwest. Three of these regions have undergone rapid economic development in the last fifteen years: the eastern region with the major cities of Dammam, Dhahran and Al-Khobar located on the Persian Gulf (where oil production is based), the central region where Riyadh is the capital city and the center of Government, and the western region, where Jeddah on the Red Sea serves as the Kingdom's major commercial and distribution center, and where the holy cities of Mecca and Medina serve as the religious centers and where the yearly pilgrimage of el-Hajj occurs. The cities of Jeddah, Riyadh and Dammam have all grown from small cities prior to World War II (with populations of approximately 20,000 people or less), to large metropolitan cities with about one million persons each in Jeddah and Riyadh and approximately one-half million people in the Dammam area. Such a rapid growth rate in such a short period of time, most happening in the last fifteen years, has put great strains on the cities, especially in the area of housing.

The climate has a major influence on housing design and the type of construction materials used. The three regions under
discussion have mean temperatures ranging from 78°F to 82°F. The east and west regions are extremely hot during the summer with temperatures up to 120-130°F and experience very high humidity. The central region is drier and goes from extremes of hot and cold during the day and night. It also suffers from intense sandstorms at times. The traditional dwellings are usually a low, one- or two-storey structures with roof sleeping areas for hot summer weather. Construction materials used in the past were coral blocks, stone and mud, which contribute to the cooling effect acting as natural air conditioners. Modern housing is mostly built from poured concrete and cement and has followed western design which does not try to minimize surface area exposed to sun, wind and sand. Electric air conditioning is the method used now to cool modern buildings.

Population

Before 1970, 85% to 95% of the Saudi population was considered bedouins. These bedouins were classified into three categories: nomadic, semi-nomadic and settled. Because of government-provided incentives to draw bedouins to the city centers or to settle them as agricultural farmers in the rural areas, and because of bad drought conditions in the 1960s, the bedouins for the most part have been absorbed into the general population. Not more than 15% of the total population are considered nomadic bedouins today. However, ties to the lifestyle of the past still exists and housing design has been a particular problem to meet this segment of the population's present needs.
Census data on the population was not available until the 1960s and even then was not accurate. Reasons for this can range from the inability to count nomadic people, inaccurate attempts at census-taking, dual residences of a portion of the population (i.e. some city residents still own farms in the rural areas and are counted as two households), as well as matters relating to keeping family size private information. In 1974, a census was taken by the Saudi Central Bureau of Statistics which listed the total population at approximately 7 million (breaking down to approximately 5.3 million Saudi nationals and 1.7 million foreign laborers). Roughly one-third of the Saudi population remained in the nomadic category. By 1980 the population had grown to approximately 8.2 million people with over 2 million foreigners estimated to be in the Kingdom, placing the indigenous population at a little over 6 million people, which although is not a verified number, has been taken as reliable by several sources.

For the purpose of discussion in this study, it is important to look at the breakdown of the population distribution between rural and urban areas to observe migration shifts that have taken place since the beginning of the development plans. In 1970s, 60% of the Saudi population lived in the rural areas, with 20% located in small towns, and the remaining 20% of the Saudi population listed as living the in larger cities (of more than 100,000 people). By 1975, in-migration from the rural areas to the larger cities had changed the distribution so that 49% of the Saudi population then lived in the rural areas, 16% were located in the small towns, and
35% were residing in the metropolitan areas. By the end of the ten-year period (1980) that population shifted even more with 46% of the population counted as living in the rural areas, 12% remaining in the small towns, and 42% (or almost half of the indigenous population) now located in the larger cities. Distribution figures have not been printed yet for the migration shifts during the third planning period (1980-85).

The natural birth rate according to the 1974 census is figured to be approximately 3% per year, and at a calculated increase annually of 1% for foreign laborers coming into the Kingdom, the total growth rate of the population is figured to be around 4% annually. This growth rate brings the estimated total population to 10 million by 1985, and it is expected to further increase it to 14 million by 1990. Other important demographic factors to note regarding the Saudi population is that between 44-46% of the population is under the age of 15 and that the average household size is 6.5 persons, but expected to drop to 4.7% with the trend towards a nuclear family versus a patriarchal family.

Because of the drastic manpower shortage we have seen a large influx of foreign laborers brought into the Kingdom to serve mainly as unskilled construction workers. Many of these laborers come from Arabic countries such as Syria, Egypt, Yemen, but some come from India, Pakistan, Africa, as well as from the Far East (Taiwan, Korea, the Philippines, etc). There are currently questions being raised as to the permanency of at least a portion of these workers. There are also a good number of top skilled managers and advisors
to operate much of the developing industry and to train Saudi personnel, as well as many highly-trained technicians and engineers. This portion of the population has put a particularly high strain on the middle-income housing units on the market, and were part of the cause for high prices for urban housing in the mid-1970s.

Cultural Factors that Influence Housing

The Saudi families in the past have been traditionally very private and prefer single-family dwellings as opposed to apartment-style units in the urban areas. In the villages, the population tends to live in row houses, for a sense of community. Neighborhoods, 'hara's, have unique qualities about them, with the mosque and marketplace being the center of each area. Courtyard designs are traditional in many Saudi dwellings which permit privacy and open spaces of the inner courtyards for family living. This design also minimizes the effects of the sun and winds that blow in the very hot regions of Saudi Arabia. Family size in the past was very large. Families lived together with many generations in the same house. Today, however, children of the married age are starting to move out of the family house to their own apartments (a western influence) and the start of the breakdown of the patriarchal family-structure has started. This will cause a considerable change in housing demand and housing design.

Land-Use

The Kingdom took by eminent domain most of the habitable land when it was unified under King Abdul Aziz in 1983. Land has been distributed to the bedouins in the rural areas for
the purpose of settling them and encouraging agricultural development. Up to 80% of the rural population owns their own houses. Land values in the cities have increased as much as 800% to 2000% or more in the past ten years because of much speculation, buying and subdivision of lots. The low-income population does not own much urban land and parcels have been bought primarily by the upper-middle and high-income groups.

In regard to squatting, in most cases the Government considers illegal invasion of land as a violation of private ownership under Islamic law. Invasions are not encouraged though as part of the government's incentives provided to draw the rural populations into the cities, tenure has been given to some squatters on government land through legalization processes which permit resale to occur.

There was not any wide-scale zoning implemented until recently, and at the beginning of the development period (1970s) much unplanned land-use occurred. Now in the major cities, there are zoning restrictions limiting certain areas to residential building or commercial building, modeled after the western townplanning standards. However, this in many cases does not fit into the traditional community design where souks (marketplaces) were incorporated into the residential areas for close neighborhood lifestyle.

Economy and Income

Before 1938, oil was not produced commercially and Saudi Arabia was among one of the poorer countries in the world with a simple economy of traditional agriculture and crafts. After World War II, annual production of oil output started to grow rapidly
from approximately 60 million barrels a year in 1948 to 1,277 million barrels in 1970, doubling in 1972 and rising to approximately 3 billion barrels in 1978). The large increase in production along with a dramatic increase in oil prices in the mid-1970s led to a very healthy growth of the Gross Domestic Product. For 1970-75 the GDP rose 13.4% annually (due mainly to oil-sector revenue). For the period 1975-80 it rose 8% annually, with better than expected growth in the non-oil sector of approximately 15.1% annually. For the third planning period (1980-85) GDP in the non-oil sector is expected to rise at least 6.2% annually.

Per capita GDP in the early 1970s was about SR 4800 ($1,400) reaching approximately SR 8,200 ($2,350) by 1980. Having one of the highest per capita levels in the world, the average Saudi citizen enjoys a comfortable standard of living, especially in the urban areas where social welfare programs and other benefits brought about by the vast infrastructure development have improved the quality of life as compared to most developing countries. The problem of inflation which grew during the mid-1970s, however, reduced the real spending power of individual households greatly, although by the end of the second plan (1979-80) inflation was brought under control and was below the world level.

Income levels vary according to sector of employment. The private sector provides greater income to its employees (at a comparable employment level) than the government sector does. Most Saudis with an education level to at least the end of secondary school, or higher, work in administrative or finance jobs in the government sector, with fixed grade and wage scales.
Men with lower-skills do not work in very menial jobs, but rather in the service sector or are engaged in commercial trade (either formal or informal). Women are now starting to enter the workforce trained as teachers, nurses and doctors.

There are no property or income taxes for individuals, except in the form of the zakat - a tax to distribute money to the poor, at a rate of 2.5% per year on net income.29

**Infrastructure Development**

Because of the Kingdom's large construction and infrastructure budgets, especially during the second and third development plans, massive building has taken place. For the period 1970-75, total budget expenditures for government capital allocation was $16 billion. For the period 1975-80 it was almost eight times greater at $140 billion. For the period 1980-85 it was almost double the previous period, at $224 billion. (These rates are at the constant 1974 prices for the first two figures, and 1980 current prices for the last figure.)30 The three development plans were formulated mainly for the purpose of building a vast infrastructure throughout Saudi Arabia to provide a modernization of the Kingdom, to help it become self-sufficient through the process of industrialization and diversification of the economy, and to raise the standard of living through human resource development and social welfare programs.

During the first plan (1970-75) much uncontrolled development took place as a result of inefficient planning. However, such successes experienced during this period were in the areas of water supplies and flood control and irrigation projects, increase
in electric utilities, major road construction to link urban areas, health and educational facilities improvement, and overall achievement of gaining control over the Kingdom's oil resources to generate greater revenues for further development. It was recognized at the end of the first plan that the Kingdom needed a great amount of foreign labor to construct the infrastructure, as well as foreign consulting advise and training in order to implement an orderly development effort as well as to transfer technological know-how to Saudi personnel. During the period of the first plan, construction spending represented 22% of the non-oil GDP. For the next development plan (1975-80) it rose to 50% of the non-oil GDP when the most massive infrastructure development took place. Achievements of the second period were in the diversification of the economy and reduced dependence on the oil-sector. Construction of materials supply industries (such as cement, concrete and steel manufacturers), agricultural and irrigation equipment manufacturing, desalination and electric power plants, and the growth of other smaller industries took place. Also an increase in the number of educational and health facilities was achieved. The third five-year plan (1980-85) which is now underway is continuing and scheduled to complete infrastructure development with further construction of roads and utilities to serve the rural areas, gas, water and oil pipelines across the Kingdom to service the petrochemical industries of Yanbu and Jubail which are currently being built. Also efforts are underway to modernize the rural areas and smaller villages with increased attention to housing in these areas to provide incentives
to the rural population for remaining in the rural areas.\textsuperscript{36} Housing construction provided by the government will increase in the rural areas, but public sector housing programs are expected to decline in the urban areas.

Conclusion: The Population and the Form of Human Settlements in The Framework of Rapid Change

As we have seen from the growth in population and the dramatic shift in population distribution (especially since 1970), there have been profound changes in the way many Saudis are living. Because of the rapid development of the major cities (from small towns to major metropolitan centers) in the last fifteen to twenty years, and because of the great amount of capital available to the government from its oil revenues to invest in the vast infrastructure and other government programs, the general urban lifestyle has been altered. The traditional communities and neighborhoods have either been demolished and replaced by modern buildings, or have experienced a turnover in residents, or overcrowding as in-migrants enter the cities. As a result, many of the cultural features of the Saudi population have changed as well as we adapt to modern life.

In regard to the population make-up, because of the rapid shift from primarily a rural population to now with at least 50\% of the Saudi population living in the urban areas, and because of the presence of a large number of foreign laborers (more than one-third of the number of the total Saudi population), great strains have been placed on the cities, especially in the area of housing.
During the 1970s this was evidenced by large squatter settlements (mainly tent communities) on the peripheries of most of the larger cities (Jeddah, Riyadh and Dammam principally), with the large-scale in-migration of rural inhabitants and bedouins attempting to gain access to employment, social services and modern amenities. In regard to such access we see that the urban population has benefited the most from government expenditures on infrastructure and human resources and social welfare development. This has brought about a change in the standard of living in that many urban residents have benefited from educational, healthcare and social welfare programs and subsidies provided in supplies of water, electricity, sewer systems and other modern amenities at low costs. The rural population is just now starting to benefit from the development effort during the third plan's emphasis on rural economic and infrastructure projects. The nomadic bedouins have benefited the least, as they keep to themselves and prefer the ancient way of life.

Foreign laborers, if considered part of the population, have in many cases found themselves living in the worst urban conditions, with many men sharing single rooms without adequate plumbing or running water. Although the government through its decree that employers should house foreign laborers has sought to provide decent housing for foreign laborers, this has not always been the case and poor conditions result for many poor foreign workers not housed by their employers.

Therefore, looking at the population growth, shifts, and
the influx of a great number of foreign laborers into the Kingdom, as well as the immense infrastructure development, we see a situation of rapid social and physical change. The immense construction activities during the 1970s and which are continuing currently have indeed disrupted the previous lifestyle in the cities, creating such problems as congestion, noise, pollution and demolition and displacement of many people from the old neighborhoods. The result has been quickly modernized urban environments with tall high-rise structures, sprawling city limits, and traffic and transportation problems. Until recently little attempt has been made to preserve any of the traditional architecture which is so much a part of our cultural tradition. The dilemma that remains is what type of an environment will ultimately exist - one that fits our culture and values, or one that will change our culture and values? Since housing is a large element of a country's and a population's identity, it is important in the discussion of housing development to consider the effect of a particular country's unique geographic, cultural and demographic and economic considerations on that development. This is especially important in examining the traditional forms of human settlements as compared to the ones that are currently being formed in the urbanization process. The past cultural forms must have some bearing on the present ones to provide continuity. In many cases, the rapid change in the urban environments has broken the link, as many unsuitable housing designs and neighborhood patterns have been built that are currently proving to alienate residents.

With this preface describing some of aspects of Saudi life
as seen in the context of our climate, our geography, our people and the current economic and physical development the next two chapters will describe the housing situation as it has developed in the last fifteen years or so, and examine the housing market and government policies towards housing development. Also presented in these chapters will be the housing programs and their suitability for the population's needs and preferences for housing design.
CHAPTER I: HOUSING STOCK AND HOUSING MARKET

Due to the rapid development since 1970 outlined in the previous section, many problems regarding housing supply and demand have risen in response to the in-migration of rural inhabitants and foreign laborers to the major cities. In this chapter I will present the housing situation as it has developed since the beginning of the three development plans and also look at the housing market.

Existing Stock – Pre-1970

In 1966, total dwelling units in the Kingdom were numbered at 862,487. These break down into the following categories by building type: concrete: 69,028, block: 64,541, stone: 162,762, traditional mud houses: 223,251, tents: 150,359, and improvised shelters: 192,546. By region the percentages of distribution of total 1966 housing was: central – 19%, western – 34%, eastern – 12%, northern – 5%, and southern – 30%. At the time, approximately 76% of the dwellings did not have piped water or electrical connections.

Demand for Additional Housing Units: Three Development Plans

Through calculating population growth, accounting for population shifts, the declining family size in the urban centers, and replacement of substandard housing stock, the following additional housing units were projected to be needed during the three development plans. Previous to 1970 (from 1966 when an established number of existing stock – listed above – was determined, until the beginning of the first development plan,
it was estimated that 93,126 additional units of housing were needed to meet demand. For the period 1970-75, the government estimated 154,000 units were needed, for the period 1975-80, 338,000 units were called for, and during the period of the third plan (1980-85) the government recognizes a need for an additional 730,000 units to supply demand created by further increases in population and replacement of deteriorating stock. The total units, therefore, during this period is approximately 1.3 million units needed to keep up with demand.

Supply Provided During Three Development Plans

The supply added to existing stock since the beginning of the development plans has not met projected need. During the first development plan, 17,500 units were constructed annually bringing the total for the five year period to approximately 85,700 new dwellings placed on the housing market. This was far below the demand level set at 154,000 units and as will be discussed in a later section the reasons for failure to produce the projected number ranged from bottlenecks of supplies and labor to poor administration of housing programs.

The second plan projected housing construction to provide 269,900 of the 338,000 units needed. The private sector was expected to produce 122,100 units of housing, 51,000 units of temporary housing for the laborforce working on infrastructure development would be provided by government contractors and 96,800 dwellings and serviced plots would be created through
public programs (breaking down to 52,500 units of public housing and 44,300 serviced plots for low-income households). It was estimated that by the end of the second plan 68,400 dwellings would continue to be substandard and needing replacement. (It is not clear whether the government intended to start production on these units by the end of the plan, or just recognize that they existed and needed replacement.) What was actually constructed during the five-year period was approximately 200,000 units of permanent housing and 51,000 temporary units.

The third development plan (1980-85) housing construction is scheduled to produce a total of 267,153 units of housing and 14,800 serviced plots. The breakdown between the private sector and public sector construction is 181,000 units to be produced by the private sector, and 86,153 units of apartments, villas and other housing projects to be produced by the public sector, as well as the 14,800 serviced plots for the low-income. The government recognizes that there will be a long period of time until the demand of 730,000 units called for in the plan will be achieved. Currently it is estimated that one-half of the population is still living in substandard dwellings.

**Housing Market: Regulations and Costs**

In the early 1970s one main objective of the Government was to modernize the major cities of Riyadh, Dammam and Jeddah to accommodate major economic development. Emphasis was placed on building roads, commercial buildings, government buildings, parking lots, hospitals, schools and to supply water, sewer and electrical
connections to inner-city structures. Land was claimed by the government with modest compensation to owners. Most of this activity took place in the major cities of Riyadh and Jeddah where much of the traditional housing was considered substandard and demolished for the purpose of rebuilding modern structures. Taking advantage of this trend, many building owners tore down their older structures to either offer the inner city land at high prices for redevelopment or built modern apartments themselves to place on the rental market at high rates.

In many urban areas up to 80% of the housing is on the rental market. Older units have been placed under a form of rent control although such regulations are not always followed. Newer units on the market are not controlled so as to provide incentives to the private sector to construct new residential buildings. Overall, the government's policy towards rapid modernization of the major cities, along with the private sector's taking advantage of tearing older structures down on valuable inner city land, has driven up the private of land to incredible rates. Along with the high labor costs and rising building materials costs, prices of newly constructed houses and apartments are very high and out of the reach of most middle income and lower income city residents. This results in a situation where the high-income segment of the population is generally able to afford any type of housing, usually living in single-family villas, where the upper-middle income portion of the population can afford semi-
detached housing or apartments in upgraded traditional houses in the inner cities, where the middle income can afford apartments or cluster housing in the inner city, and where the low-income households usually find themselves living in row houses, tenement rooms in deteriorating traditional structures or in shantytowns on the peripheries of the cities where they are not subject to monthly rental charges or building regulations.

A housing crisis occurred in the mid-1970s when inflation was reducing the spending power of the general population, and at a time when large amounts of foreign executives and highly trained personnel were putting a strain on the middle class and luxury apartments which were rented to them at tremendous prices ranging anywhere from between $10,000 to $30,000 per year for an average 2-4 bedroom apartment. Rental prices for a 2-bedroom apartment for medium-income Saudi residents during this time were around $150-$200 per month in 1974, increasing progressively to as much as $500-$800 per month in 1977, when inflation was at its worst. Because of these extremely high rental figures, in 1975 many municipalities attempted to regulate rents such that they could not increase more than 5% annually. In 1976 rents were frozen altogether because of the crisis in the rental market, especially for middle-income housing. By 1977 rents were permitted to rise again but at a controlled annual rate.

To deal with the housing demand created by the increase of foreign laborers into the Kingdom, a decree in 1977 obligated
employers bringing more than 50 foreign employees into the Kingdom would have to provide housing for its imported labor force.\textsuperscript{17} However, in many cases companies would rent entire apartment complexes to comply with the decree, therefore removing such residential structures from the open market and this put greater stresses on the housing market. There are many instances, however where this regulation is not followed and many of the poorer foreign laborers find themselves living in shanty areas, or inner city tenements.

Other regulations affect the construction of housing units such as service taxes to be paid when obtaining construction permits, the requirement for building permits and zoning laws (i.e. regulations regarding setback for one-storey villas or 2-storey row houses, building materials, lot coverage, etc.).\textsuperscript{18} Restrictions have also been set on speculation with new regulations making it harder for private individuals to buy up large parcels of land, hold them off the market and subdivide them for huge profits. This however came late, as most of the inner city land was bought up during the mid 1970s.

Housing Market and Income Groups

For the purposes of this study, higher income groups will not be discussed since they are able to afford any type of housing. In most cases the very wealthy have built luxury villas on the outskirts of the major cities and many high-income suburbs have been created in this movement. This has created a polarization of
income groups in the inner cities, where the middle income portion of the population remains in the better inner-city structures, the wealthy have moved to the suburbs, and the moderate and lower-income groups are cluster in inner city tenements or in shantytowns.

The middle-income families during the mid-1970s found housing particularly expensive with the demand created by the foreign consultants and engineers and with the effects of high inflation on the housing market. Now, however, with the combined effects of rent control, controlled inflation and a larger supply of newly constructed apartments on the market, the middle-income portion of the population finds housing readily available and at more affordable rates.

Low-income Saudis, however, do have trouble finding affordable housing and many live in improvised shelters such as tents or shanties on the peripheries of the large cities. Low-income households also live in deteriorating tenements in the inner cities. The government has not done much to add low-income units to the open rental market. Some self-help projects have been started but not many of the serviced-plots called for in the second plan have materialized. Other projects provided for the low-income groups by the government have been the rush housing complexes in Riyadh, Jeddah and Dammam, however, most of these units have not been made available for occupancy.

**Conclusion: Urban Housing Situation**

The housing stock and housing market basically fall short of the needs of the Saudi population. Rental prices have been
high in the urban areas and even the middle-income portion of the population has had a hard time affording adequate dwellings.

The market is primarily controlled by the private-sector which can ask whatever rents it desires for newly constructed housing.

Rents controls are imposed only on the older buildings, giving landlords little incentive to improve conditions which leads to further deterioration of these buildings.

Overall, the housing market has immense problems in terms of cost of housing both on the rental and construction market because of high land prices, materials and labor costs and because supply has not met the increasing demand. The rapid growth in the urban areas has put too great a strain on the housing supply especially for the low-to-moderate income level households.

Almost half of the housing stock is deteriorating and there has been little upgrading effort. Shantytowns are the result for much of the low-income population in the major cities because of the lack of low-income units produced by the public sector.

What is important to consider is why has the government allowed such an uncontrolled housing development to take place which favors upper-income groups in the private sector, and not the low-income portion of the population which needs greatest assistance. I will attempt to answer this question in the next chapter in my discussion of government policy and programs.
CHAPTER II: HOUSING DEVELOPMENT DURING THE THREE FIVE-YEAR PLANS: POLICIES, OBJECTIVES AND PROGRAMS

The purpose of this chapter will be to examine government policies and programs regarding housing development. The stated policies and objectives of the three development plans will be described as well as the public and private sector housing programs. I will examine the institutional framework where from the policies, actual programs are planned and implemented. Finally, I will offer criticism of the policies and programs in a section on policy implications, and in a conclusion stating where I think housing development has in the implementation stage parted from the stated objectives.

Housing Policies and Objectives

First Plan — Before 1970, the government did not have a stated housing development policy. The housing industry during the 1960s remained highly undeveloped as there was no active financing agency to stimulate the housing market. In the first development plan it was recognized that deficiencies in the housing industry and shortages of supply on the housing market was a serious problem in the growing cities. The plan stated as one of its priorities to work to improve the substandard housing conditions in the Kingdom, especially for the low-income households. However, it admitted it could only provide limited capital for this purpose because of financial constraints on the government at the beginning of the plan. Objectives of the
first plan included: determining how many units were needed to meet demand and what condition the overall housing stock was in - regarding substandard conditions, establishing a financing agency to assist housing projects and work to improve the real estate market.³ It also intended to design modern communities (to be started during the second year of the plan) to serve as models for future new construction.⁴ During the third year of the plan, it was stated that an overall housing program would be developed.⁵

Strategies to implement these objectives were first to obtain new technologies for the building industry, and information about modern building materials and their costs so to assess feasibility of housing construction during the period.⁶ Secondly, the government planned to initiate a study to determine what were the housing needs for each income group and what the willingness and ability was of each group to afford their appropriate housing type. From these studies it was thought that programs could be designed to implement specific housing projects for each income group. Also indicated by the studies would be the willingness of the private sector developers to invest in housing programs as well as to determine how much of the indigenous laborforce and domestic building materials could be utilized for such construction. It was hoped than an effective housing construction industry could be developed through such determinations. Also called for in the basic strategy was to coordinate housing projects with other sectoral development such as infrastructure, public works, etc.
Second Plan - During the second development plan the government focussed more heavily on the housing needs of the Kingdom. It stated as its primary objective to "enable every household in the Kingdom to have a decent, safe, and sanitary dwelling of a standard consistent with its level of income." The plan further stated that it recongized it would take a period well beyond the end of 1980 to accomplish this goal. The government admitted that the housing situation grew worse during the first plan and that there was very poor conditions of deteriorating stock in the inner cities. It implied that the shantytowns would infact be cleared if their "locations do not conform to urban growth patterns". The published plan said that the institutions to bring about adequate resource supplies (materials, laborers, land, technology and capital) were lacking and that costs were rising too high for the most part to create affordable housing for the majority of the population. It went on to say that the "Kingdom had no recongizable housing industry, but rather a proliferation of small firms operating on a cash-in-hand basis for individual clients."

The main objectives of the second plan in regard to housing were to assure that adequate numbers of units would be provided for expatriate manpower engaged in the infrastructure development, and that the government would attempt to systematically develop housing in the context of urban patterns that were coordinated with other sectoral development. In the plan's own words, it would "develop housing within orderly urbanization patterns that
accord with the employment, social, and environmental requirements of residential settlements." It also stated that as a fundamental objective would be the creation of institutional, financial and legal structures to bring about all of the other objectives.

**Third Plan** - For the third plan, a greater amount of coordination between agencies and a more comprehensive urban and rural municipal and residential development would be its general policy. One of the basic strategies for bringing this about would be the development of "commercial, industrial and residential potential in those towns designated as being of national regional or district importance." In this approach we see that growth poles would be determined so to concentrate economic development and municipal infrastructure and public works and housing activity in areas of potential development. During the plan another major objective would be to focus on low-income housing needs, especially in the rural areas. The plan would also attempt to decentralize administration of its programs to lower levels (i.e. municipal and village levels), enforce building standards and recent zoning regulations, and implement technical programs regarding infrastructure.

In order to bring about its long-term objectives of comprehensive housing development, a series of studies would be undertaken during the third plan. Among these studies will be housing statistics surveys to determine the overall conditions of housing units in the Kingdom, the number of units, and what proportion still remain
substandard. The rental market will be assessed in the urban areas to determine numbers of vacant units, future demand and absorption rates. A long-term study will be developed to determine housing demand for the next twenty years, how much capital will be available for investment in the housing industry, and an assessment of the necessary administrative, level and financial institutions needed to bring about a comprehensive program.

**Housing Development: Institutional Framework**

**First Plan** - It is important to examine under what agencies of the government housing policies and programs were developed. During the early 1970s housing was planned and implemented by the General Housing Department which was part of the Ministry of Finance and National Economy. The Ministry, with limited capital resources allocated for housing, put most of its investment capital into infrastructure development. Little was targeted for public housing projects during this period. The strategy to make up for this deficiency in capital allotment for housing was to stimulate the private sector construction of residential dwellings through lending programs. At the time, SR 30.5 million ($8.7 million) was allocated for this purpose. Near the end of the first plan, in 1974, the Real Estate Development Fund was established with a capital allotment of SR 3000 million ($85.7 million) for the purpose of financing private sector, owner-occupied dwellings as well as commercial developers' housing projects, and municipal
projects relating to housing. This financing institution would provide long-term (usually 25-year) interest-free loans of up to 70% of the total cost of dwellings to individuals, and up to 50% of the costs of residential buildings and hotels to private developers. The prerequisite for loan eligibility was land ownership for the planned structure.

Second Plan - The institutional structure of the housing program changed during the second plan. In the published plan, the government recognized that the General Housing Department did produce some successes in new housing construction, however, it criticized the department in that it was "too largely engaged in formulating plans and in organizing technical and managerial skills to implement their programs." It was decided to reorganize the General Housing Department into a Housing Organization which would have a more specialized staff and representatives of "various government, financial, economic and social interests related to housing." The Housing Organization would have regional branches with decentralized authority for implementation of housing programs. During the first year of the plan, however the institutional framework changed its direction and a separate ministry was formed to assume responsibility for public housing programs. The Ministry of Public Works and Housing was established in 1975. It would continue to work with the Real Estate Development Fund (still a division of the Ministry of Finance) to plan investment for private sector loan programs, and develop through its own offices public housing
projects aimed at supplying low-income units to the housing market. The Ministry remained part of the highly centralized government structure in its planning organization and did not coordinate or decentralized much of its administrative power to the municipalities, making decisions based on its own studies.

Third Plan - During the third plan, we see a move to link agencies of the government as well as to integrate studies and planning efforts in order to reach a more comprehensive development effort in regard to municipal and residential programs. The current plan has developed a three-way network between the Ministry of Municipal and Rural Affairs, the Ministry of Housing and the Real Estate Development Fund. This coordination will include providing city services, planned residential development, designation of open spaces, and allocation of housing plots for both low and middle-income households. The plan intends to continue its policy of private sector housing development through the REDF lending program, however loans will be more heavily monitored to provide residential credit only to those areas targeted for regional and municipal capital investment. Programs will be partially decentralized in the implementation phases to municipal and village levels and greater coordination between different municipalities will be attempted.

Housing Programs

We have seen that the housing development objectives and policies and the structure of the agencies planning and implementing them, has taken a series of steps in the last fifteen or so years.
Beginning as part of the Ministry of Finance, the General Housing Department did not have a comprehensive housing program. It instead relied on providing loans to the private sector (through the REDF) to implement new housing construction. During the second plan, the deficiencies of the housing industry were recognized as well as the deficiencies of the planning organization of the Housing Department. The Ministry of Public Works and Housing was established for the purpose of planning and implementing specific public housing projects and to continue to work with the REDF for private sector housing development. The third plan has gone further to reorganize the structure of planning for housing integrating it with municipal development in targeted areas.

If we look closer at the particular strategies to develop housing programs during the three planning periods, we can see reflected in the programs, these institutional changes in the planning strategies and housing programs.

First Plan - During the first plan, emphasis was on housing construction by individuals in the private sector. Only 87,000 units were constructed during this time, mainly through REDF loans. The public sector was responsible for initiating 2,500 units of public housing and 1,000 plots, but these were not planned to be completed until 1976 or 1977. 31,000 additional units of public housing were planned for eight cities but construction had not yet started. There was no clear-cut strategy other than to let the private sector randomly construct housing
units during this time due mainly to shortages of capital allocated for public projects, bottlenecks in administering public sector projects and problems encountered in the implementation of projects by the unorganized and newly created bureaucratic agencies. A terrible housing crisis was developing by the end of the first plan, with millions of foreign workers coming into the Kingdom, a large rural-to-urban migration, and a general lack of coordination between private sector development and national and municipal agencies. Also, overall confusion was generated in the urban areas by the rapid infrastructure construction process which was underway.

Second Plan - During the second plan there was a higher degree of control over planned public and private housing programs. However, in most of the cases there appeared deficiencies in the planning or implementation stages. As stated in the previous section, 338,000 units were called for during this period, including a figure projected to accommodate foreign manpower. The plan came close to producing what was targeted, especially in the area of private sector construction which in fact produced 30,000 more units than was projected. However, if we look at the public sector construction, we will see that it fell very short of producing the needed units for low-income households. 53,600 units of housing were produced by the public sector but many of these were for government agency housing requirements for their staffs, and were not placed on the general housing market.
Of the 43,600 serviced plots planned for the period, none were allocated. 51,000 prefabricated units were acquired to house foreign manpower employed by government contractors, however this number cannot be near the real demand considering that 2 million or more foreign laborers were in the Kingdom by the end of the second plan. Underway at the time were approximately 5,000 units in public housing projects and another 13,573 apartments and villas funded by the REDF, but these were not scheduled to be completed until 1982. During the five-year period the REDF had disbursed more than SR 31.5 billion ($90 million) to individuals and developers and as is evident, great amounts of capital investment and credit made available by the government was mainly benefiting the higher income groups.

If we look closer at one type of public housing program, we will see great deficiencies in terms of design and designation of tenure. The so-called Rush Housing Projects were planned for location in Riyadh, Dammam and Jeddah. They were to provide 5,742 units of housing for low and medium income households. These projects mainly took the form of high-rise, high-density complexes located in the inner areas of the three cities. One such rush development is the Jeddah Towers which consists of eight bases of buildings with four, fifteen-story towers in each base (giving a total of 32 towers), which will provide 1932 apartments all of identical layout. Central recreational areas, shops, garages and playgrounds are incorporated into the design at the bases of the buildings. The structures look impersonal and do not conform
in any way to past cultural preferences for privacy and family living. This type of housing construction does theoretically (in terms of square footage cost) fill one of the government’s objectives: "to settle the most number of people in the shortest period of time in an economic manner, with quality construction." 36 However, maintenance and other costs of upkeep, as well as delays in occupancy might prove this statement to be false.

Even though the rush programs were completed on time, they remain empty because infrastructure (mainly utilities) have not been connected to service the buildings in all cases and tenure selection has not been determined. 37 Other unknown causes have also delayed occupancy.

The General Housing program has a second type of housing design which seems more practical and adaptable to previous styles of living. These are in the form of low-rise apartment buildings and villas to be offered to middle-income households that can afford the initial investment. 38 Grants have been issued for construction of such units in Riyadh, Jeddah, Al Khobar, Mecca, Medina, Burayda and Qatif and are to be administered through the REDF. Again this type of housing benefits the portion of the population that have savings or substantial enough incomes to support the initial down-payment and other costs.

There are other public housing projects in the form of staff housing for government personnel and housing for military personnel, however they will not be topics of discussion in this
study since they are not part of the general housing market.

**Third Plan** - During the third development period, we see greater coordination of projects and a more comprehensive scope in the development effort regarding housing to reflect an improving institutional organization. The Ministry of Housing, working with the Ministry of Municipal and Rural Affairs and the REDF has planned to implement 1160 projects in 117 municipalities and towns which will be designed to provide better infrastructure (roads, sewers, drainage, water and utilities), municipal buildings, and other projects to facilitate housing development. 700 additional projects for water systems and roads are also planned for smaller villages. All of these will be implemented through local municipal and village administrative units now being organized.39

The third plan has recognized the need for over 700,000 units of housing needed to meet demand and to replace substandard dwellings. 450,000 of these units are designated to be needed in the urban areas.40 The plan, however, is reducing public housing programs in the urban areas and instead concentrating on rural housing development. New construction is expected to be primarily produced by the private sector with up to 68% of the new stock (181,000 units) built through loans supplied by the REDF. The REDF however, will more carefully monitor loans during the third period, increasing its branch offices from 7 to 60 for better administration of loan disbursement.41 This monitoring effort will be an attempt to coordinate the private sector housing
construction with government objectives for housing development and residential patterns. Loans will only be disbursed in designated areas of national, regional and municipal potential as stated in the policy section of the third development plan. Loans will only be approved to builders who have public utilities and other infrastructure to service such housing already in place or scheduled to be installed. Building standards will be stressed by offering incentives through faster processing of loans to builders who are constructing dwellings of approved design standards suitable to Saudi climate and physical environment. Also loans to private developers who are adding stock to the rental market will only be approved where the government determines there are market needs. 42

The REDF during this period is expected to disburse credit in the amount of SR 14,621 million ($4.2 billion) and the infrastructure budget supporting municipal and residential development (mainly in the rural areas) is set at SR 104,326 million ($29.8 billion). 43

Overall greater emphasis will be given to low-income housing where the government will produce as public sector housing, approximately 10,000 new units in Khafi, Mecca, Medina, Riyadh, Burayda, and Qatif, as well as 14,800 low-income serviced plots to be located in 15 different urban and rural areas. 44 8,500 of these lots have already been designated and work has started on servicing them. 45 Special housing programs providing 700 units of low-income housing will be divided between the northwestern, western, southwestern and central regions' smaller villages. 46 We see in the housing
programs planned for the third period an attempt to make-up for the deficiencies experienced in the earlier planning periods with a move towards more coordination between agencies, rural residential and municipal development, and more attention to low-income housing projects. However, as with the earlier plans, the test will be in the implementation stages. The objectives and policies in most plans always strive for the most optimistic scenario possible depending on available capital for investment and other limiting factors. However, it is in the actual producing of the projects that the shortcomings surface. Based on the deficiencies and failures to provide adequate numbers of units for the low-income, the next section will offer comments on where government policy has actually brought the housing sector, especially during the period of the 1970-80 plans, as overall results of the third period are yet to be determined.

**Policy Implications**

The following implications can be made considering policies, objectives and programs discussed above.

- The government favors private sector development over other methods even though it has not produced housing suitable for middle and low-income households.

The government has relied on the private sector to produce the majority of the housing units projected as needed during the development plans. It has injected immense amounts of capital into the private sector (the REDF
being the largest credit operation in the Kingdom to stimulate the housing industry and to supply the market with competitive units. However, the free market has not and cannot provide adequate low and moderate income housing to the market, considering the high costs of materials, labor, and land, such that the private sector developers of course expect good returns on investments and will not rent their units at costs affordable by the low and moderate income groups. We have also seen that because of loose control over the REDF loans, and because of higher-income individuals and businesses taking advantage of the structure of the loan program that primarily upper-middle class and luxury housing units have been the result of private sector construction activity. Also inflated costs for units on the market and massive land speculation has taken place as a result of the high demand on construction materials going into the rapid private sector construction and the rush to buy up inner city land in the mid 1970s. The government also placed little restrictions on private sector building during the first and second plans and did not actively attempt to coordinate private-sector development with its overall housing objective of providing a decent, safe and sanitary dwelling to every household in the Kingdom according to that household's income level. The government
must now be willing to intervene in the housing market and impose the needed controls on land-use and building construction and to better allocate materials and labor for low-income housing construction. The end result of the government policy for private sector development has basically been an inequitable distribution of financial and other resources going mainly to the higher income groups instead of low-income households who are in the most financial need. The third plan has recognized these inequities and now will monitor more closely the loans. However, the emphasis of the third plan is on rural housing construction for low-income and is not concentrating on the massive urban housing problems that are currently being experienced by the low-income portion of the population. Low-income public housing programs are not a priority.

As low-income private sector housing has not come on the market, low-income public housing programs have not been made available at a significant rate. The rush housing programs still remain empty years after completion and there has been little active attempt for tenure selection up to the point of publication of the third plan. Serviced plots planned during the second plan have not been allocated as the third plan admits. There are a small number of lots being serviced at the time of the third plan's publication, however, this does not indicate a serious program of
providing sites and services or self-help programs for the low-income as an alternative approach to the low-income housing problems.

Squatter settlements are tolerated, but there is no comprehensive program to upgrade or incorporate them into the urban frameworks. During the first and second plan, squatter settlements grew. Legalization of such settlements and provision of infrastructure and city services has been slow or does not exist at all. In some cases squatter settlements have been cleared for modern construction. In other cases they have been built around and left with substandard conditions while modern infrastructure has been provided to adjoining neighborhoods. The government has allocated government-owned land for some squatters but servicing of this land is bureaucratically delayed generally and therefore construction of core houses cannot properly begin. Furthermore, upgrading of improvised shelters and sites and services is not a formal part of the government's plan to deal with the urban poor. The government's specific policy towards dealing with this part of the population remains unstated and impossible to determine.

Upgrading and preservation of traditional structures is not a government objective. The traditional urban housing is in a very bad state of deterioration for the most part.
There have been few funding programs to upgrade such housing in order to increase units on the rental market or to increase property values for individual owners. Obviously through the enormous amount of capital allocation for new construction by the REDF loan system, there has been adequate revenue to assist in an upgrading financing program. The government, through its policy of encouraging modern construction and allowing demolition of large areas of the older cities to occur, shows little interest in preserving the traditional buildings, except in a few isolated cases of preserving historic buildings in the city of Jeddah, for example. We can only conclude that the government has not recognized upgrading as a method of increasing the up-to-standard housing stock, while at the same time preserving traditional structures.

The government is unwilling to seriously commit itself to rent subsidies even with abundant capital available. High costs have been the major problem in the urban areas because of the large rental market and the shortage of decent housing. The government did little in the early 1970s to stop land speculation or to hold down materials costs through subsidizing and developing technologically a modernized housing construction industry. As a result, high rents to some extent are justified for private-sector landlords and real estate companies because of the high
costs of land, materials and labor. Further, because of the great demand for housing construction, contractors have inflated costs, provided poor quality construction and generally taken advantage of the situation as a whole. This is due in one respect to the great amount of unmonitored loans supplied by the REDF for new construction, and also because of questionable practices by both domestic and foreign contractors.

The government for the most part has not tried to ease private-sector urban housing rental costs through a direct or even indirect subsidy program for low-income groups. Even with many empty modern units on the market at the present time, there appears to be no planned effort to utilize the empty private-sector housing through rent-assistance to the low-income. The reason for this is probably that the government does not want to start a housing welfare program it might not be able to stop at a later time, and this position has its merits. However, in a country that has so much revenue to invest, it seems wasteful to permit empty units to remain on the market while a high proportion of the low-income population continues to live in substandard and improvised housing.

Expatriate manpower housing accommodations is not a direct concern of the government. Although a formal decree was made in 1977 to restrict foreigners in the labor-
force employed by larger companies, to rent on the
general housing market, little has been done to accommo-
date the expatriate manpower. We see during the second
plan 51,000 units of prefabricated housing provided
to foreign laborers (this number was actually reduced
from 100,000 called for at the end of the first plan).49
Considering the large number (over 2 million) of foreign
laborers in the Kingdom by the end of the second plan,
government policy seems to have done little to help the
situation. The alternative has been for terrible over-
crowding in the inner city tenements and improvised shelter
near construction sites and at city peripheries to house
such laborers.

Conclusion: Policies and Housing Programs - A Critical Evaluation

The policies of the government as well as its programs have
led to an increase in the housing stock providing standard or
better housing for at least one-half of the Saudi population.50
However, for the other half of the population housing accommodations
have remained poor, and deteriorating conditions have progressed
in the urban areas as well as the growth of many shantytowns.
This section of the study will criticize housing policy and
programs as they relate to the lower-income groups who are in
the most need of government housing assistance. It will also
attempt to answer the question raised in the last chapter as to
why the government has allowed uncontrolled housing development
to occur favoring the higher income groups.
Housing Policies and Programs

We have seen, as stated in the three development plans, that government policies and objectives have called for low-income housing programs. However, through the three planning periods, little low-income housing stock has actually become available. The reason for uncontrolled housing development that has taken place and the inadequacies of the low-income public housing projects has been mainly due to what I believe are structural problems in the system to coordinate government housing policy with private sector development. The REDF loan program, for example, has not really contributed to low-income housing construction through its lending program to the private sector. This is largely due to the requirement of land ownership for individuals as a condition for loan application. The lower-income level households cannot therefore take advantage of the credit system available. Also the mechanisms put in place to develop the housing construction industry have not achieved the most cost-effective and efficient construction programs possible. Therefore, my basic criticism of government housing policies and programs set up to create new construction activities is that there has not been a clear-cut policy and set of strategies designed to link private-sector housing development and construction industry operations to the overall housing needs of the Kingdom.

In a country where the principal resources are in the hands of the government agencies (i.e. financing, contracting agreements with large foreign construction firms, access to imported building
materials, etc.) the burden of low-income housing development must lie with the government, because it has nowhere else to lie. The government's massive development effort carried out in such an escalated pace has actually caused many of the low-income housing problems. The rapid migration to the cities by the rural inhabitants in search of jobs, as well as the incredible influx of such a great number of foreign laborers to help in the infrastructure development has put a great strain on the urban housing market. The cost of urban housing on the rental market has been another problem for the low-income, and even though there is currently a surplus of modern housing stock on the housing market many units remain empty because of the high rents they demand. Little direct rent subsidies have been provided by the government so that lower-income households can acquire such units, while billions of riyals have been disbursed through the REDF program for financial assistance to higher income groups who do not have such financial constraints on them regarding acquiring adequate housing. Vast amounts of capital investment have been placed in municipal infrastructure, however the government is slow to service slum areas and squatter areas and cannot seem to allocate the 43,000 lots called for in the second plan. The rush housing programs stand empty with over 5000 units off the market because of bureaucratic and other delays. Clearly there is something wrong in the government's policy and programs regarding creation of an adequate supply of low-income housing to meet the increasing demand. What is basically needed is a more competitive rental
market in the urban areas, a system of indirect and direct rental
subsidies for lower-income households, and a more equitable
distribution of financial assistance available to the low-income
households so that they can afford to purchase and rent already
constructed homes or be provided with ownership of serviced lots
to make them eligible for the REDF loan program.

The government's policy regarding land-use is also deficient.
No serious steps have been taken to regulate land-use and to
proceed with planned growth through zoning and other regulations.
The third plan, indeed, admits that "it has not been feasible to
control the location of residential and commercial structures
through legally enforceable planning and building codes."51
Since the late 1970s there have been building standards and land-
use regulations, however the municipalities even though they
require approval of building permits before construction do not
have an active program of administering such regulations. The
result has been continued speculation and subdivision and selling
of unserviced plots that are useless for construction until the
needed infrastructure is supplied to the sites. Unplanned building
has further led to higher costs of supplying infrastructure and
public works when it is installed. In cases where land has been
granted to low-income households, it is generally located far away
from the city centers, does not offer access to areas of employment,
city services and efficient transportation and therefore is
inappropriate for construction of up-to-standard dwellings.
Where infrastructure has been supplied to such land grants, it has
been slow.

**Institutional Framework**

Regardless of the deficiencies in policy, I do believe that the government is committed to a serious effort to cure such problems and crises in housing for the low-income portion of the population. However, I think it has been the institutional framework and poorly experienced planners that have distorted the translation of the objectives into projects to help the urban poor. The lack of coordination between the planning institutions involved in housing development and the actual construction companies have been one area of the problem. Ambitious developers and contractors (many are international and multinational corporations) have misguided physical development in many cases by taking advantage of the underdeveloped and naive institutional framework, especially at the beginning of the development effort in the early 1970s. For instance, we see many new complexes deteriorating after a few years' use - called the 'new clums' - because of improper construction techniques and materials used to appropriately suit our climate and environmental conditions (i.e. soil conditions, the effects of sand and intense heat, etc.). Further problems of professional inadequacy in government agencies in terms of inexperienced staff personnel, poor information systems and reporting structures, bureaucratic bottlenecks, lack of effective monitoring systems for project phasing, and deficiencies in allocating funds to finance projects have all led to problems
with public sector projects. Further problems can be seen in the qualifications of the planning and implementing staffs of the agencies dealing with public housing such that because of lack of technical and professional skills have trouble dealing with unforseen problems occurring in the implementation stages. The result of this has been hesitation and project delays when such problems or bottlenecks are encountered, especially regarding construction and design changes, delays in supplies and utilization of technological innovations unfamiliar to the industry.

The basic problem I see regarding institutional framework problems is that the scope of the development effort - mainly in the area of construction - has been too large and has led to the majority of problems encountered when implementing projects. The time-frame has been too fast and we are just starting to learn from our mistakes and misjudgments.

The highly centralized planning structure and administration of programs has also contributed to failures of both public and private sector housing development. The public sector has basically been left alone to build what it wants, where it wants. Regarding public projects, the planning agencies involved have given little attention to the people they are planning for, basically the middle and low-income groups. There has been little local level participation in housing design and suitability. Feedback and evaluation of housing programs are at a low level. The rush housing projects are evidence of this as there is great doubt that
the design of these structures will suit a low-income population (mainly coming from bedouin stock tied profoundly to the earth), such that they can easily adjust to living high up off the ground in high-density, glass and concrete structures. Since the government planning has worked in such a centralized bureaucracy, not much planning activity has been decentralized to the different regions of the Kingdom. Even though each region has its own features and characteristics, its own climate and its own cultural traditions which have in the past influenced its housing needs and preferences, the standard form of high-rise public housing has been implemented in all three sites of the rush programs (east, west and central regions). The planners in Riyadh, mainly relying on western designs and advise, have overlooked the personal, Saudi cultural element in housing design and have instead contracted for large modern structures. One reason for this might be in producing the greatest number of units possible for the land site to be developed, but as a result the projects have suffered in terms of gaining the most suitable form of urban settlements to fit the real needs of the Saudi population. Many projects furthermore, have been wasteful and have not been coordinated in an efficient manner with other sectoral development such as location near employment places, accessibility of schools, commercial districts, efficient transportation links, and installment of municipal public works systems, although this was called for in all three plans' objectives.

We see over the last fifteen years or so, that the government's institutional framework has not been effective enough to deal with
its housing programs. Coordination has been loose, the private sector has been uncontrolled in its housing development and the low-income programs have not been implemented to a stage where they can benefit the people most in need of an efficient and effective housing program.

**Housing Industry**

Regarding the housing industry, there is no organized block of large private-sector institutions such as lending institutions and commercial banks, insurance companies, real estate companies and large developer/contractors engaged in housing development, as seen in the west. Banks rarely put up mortgages for private construction. One reason for this is that in Islam, interest charges are against the religious law and therefore such a concept has been slow to develop in the Kingdom. The government has not taken effective steps to organize the private sector into a viable housing construction industry although it states such an objective in the second plan. Coordination of private sector development, as mentioned above, has been poor in the first two plans and remains to be evaluated in the third. The time-frame has been too short to create a large enough industry, it is true, and as part of the Kingdom's plan to industrialize and diversify the economy we do see the creation of many building supplies manufacturers. Banks and other lending institutions are beginning to get involved in financing residential construction and I think we will see a greater effort of coordinating the housing industry in this coming ten-year period.
Government Studies

Although surveys, suggested in the development plans were undertaken, it is evident that the government has not obtained the necessary socio-economic and environmental impact information necessary to develop a sound middle and low-income housing program. Most of the studies done merely counted households and their sizes. Many studies were contracted out to foreign consulting firms which through inappropriate methods or inability to communicate with the general population have not produced appropriate data regarding housing needs and preferences. In many cases, little actual fieldwork has occurred in determining the general population's feelings towards the type and design of housing they want. As a result we see hundreds of modern-style apartment block buildings being constructed throughout the cities by individual developers seeking huge profits through anticipated high rents. It is therefore important for the government officials to more specifically aim their studies at the actual needs and desires of the general population before housing designs and permits are approved by the local municipalities.

Model Communities

It is not clear what the models mentioned in the first plan have accomplished in the way of establishing a basis for community design in Saudi Arabia. Some model communities were built for bedouins as one I saw in the vicinity of Riyadh. It consisted of detached housing in a complex in a grid layout. It did not suit the tribe's lifestyle as the bedouins refused to live inside the
structures and instead erected tents outside of them and released
their animals into the streets. They only used the structures
for the indoor plumbing facilities.

Nine model communities are stated to be planned during the
third plan and it is questionable what can be determined through
them - whether any standard regarding housing design can indeed
be established. What is needed in this regard is a few model
communities designed and implemented by experts in the field
where professionals can monitor how the residents adapt and per-
ceive their lifestyle in such communities, and whether on the
long-term they are workable as design solutions to growing urban
settlements. Most importantly in this regard, I think it is
necessary to look at the past, the traditions and lifestyle that
have proved to be successful for thousands of years, where the
Islamic sense of community has existed in neighborhoods incorporating
dwellings with the souk and the mosque to achieve a cohesive sense
of human settlements. As is currently being conceived by some
planners and architects making proposals for urban development in
Saudi Arabia are futurist cities where entire communities will be
located under glass-enclosed environments in desert areas, which
I think will be highly unlikely to be accepted by the general
population.

In conclusion, the basic problem has been that there has not
been a comprehensive set of policies and programs for housing
development in the past. There have been few common factors
established to provide guidelines for housing development in terms of design, cost, building materials standards and residential patterns that have been mandatory for the private sector to follow in its housing construction. The result of this basic lack of coordination has been sprawling and randomly adapted construction (modeled after designs used in other Middle East countries, Europe and the U.S.) without any specific criteria on how these structures suit our environment and cultural traditions. Planning strategies and program implementation have been loosely monitored and although studies have been undertaken, there is not a great amount of evidence that specific conclusions have been reached about what type of human settlements will benefit the general Saudi population. Therefore we see unrelated high-rise housing mixed with low-rise cluster or detached housing in no organized pattern in most of the major cities. Little attention has been given to preserving or upgrading the traditional housing and integrating new construction into a format that is complementary with the older structures. Most of the modern projects basically require huge amounts of complicated cooling systems which result in high energy consumption and maintenance costs. High-rise buildings for the most part, are not necessary design choices (as in very dense western cities) because of sufficient amounts of land area available in the growing Saudi cities. If land had been appropriated in a planned and efficient manner and if zoning had been regulated from the beginning of the development period, a more suitable environment for urban
settlements could have most likely been achieved.

As far as low-income housing development is concerned, we see a dualistic policy - one that is stated in the development plans that seems well-founded and firmly committed to helping the urban poor acquire adequate housing, and one that in the implementation stages does not supply such housing to the market. The government has injected massive amounts of investment into the housing system through REDF loans, which shows its investment commitment to housing development, however these loans have not resulted in adding to the housing stock available to moderate and low income groups. The outcome instead has been an imbalance on the housing market; while there has been a saturation of upper middle income housing and luxury dwellings, the middle and low-income housing is still in short supply. Overcrowding in inner city substandard structures still continues and so do the living conditions in the shantytowns. The reasons for this uncontrolled and imbalanced housing development has mainly been a result of the weak system of administration and coordination in the implementation stages of programs. REDF loans have gone to individuals and developers who have taken advantage of the available credit - where strict monitoring has not been enforced to see that residential buildings are constructed in the most cost-effective way and offered at reasonable rents. Also, public projects have not placed adequate numbers of low-income units on the market as the rush program high-rises and serviced plots initiated in the second plan have not been
made available to low-income tenants. We must ask the question therefore, is the low-income portion of the population any better off now than it was at the beginning of the development plans? The next section will look closer at low-income housing and squatter settlements to help answer this question.
CHAPTER III: LOW-INCOME HOUSING AND SQUATTER SETTLEMENTS

The purpose of this chapter will be to give a more detailed examination of the housing situation of low-income households in the major urban areas of Saudi Arabia. I will look at the form of human settlements before the rapid growth period, and the rural and bedouin migration to the cities which has accounted for a large portion of the low-income urban population. The socio-economic characteristics of the low-income population, the type of housing they have acquired and the development of squatter settlements in the major cities of Riyadh, Dammam and Jeddah will be discussed. Further I will examine government attitudes regarding low-income housing and squatter settlements and the major constraints on achieving a solution to the low-income housing problem.

Human Settlements Before the Growth of the Urban Centers

Before the large-scale production of oil, Saudi Arabia was one of the poorer countries in the world. The small urban centers previous to the 1940s were mainly located in the western region - Mecca, Medina and Jeddah, and in the central region - the capital being Riyadh. Resources were scarce and the population lived on a simple economy of agriculture, craft-making, fishing and shipbuilding, trade, etc. The economy remained undeveloped over time because of the limitations on transportation due to geographic and climate factors, and because of the lack of manufactured goods. Basically the regions were
very separate, each section of the Kingdom depending on its own resources to fill its needs. The majority of the population was considered low-income but managed very well to utilize their resources in terms of design of housing, community patterns and lifestyle in general.

Rural villages were formed with clusters of mud or limestone houses arranged along patterns of narrow, irregular streets, utilizing inner courtyards to capture cooler air and circulate it through the surrounding houses. Mosques and marketplaces were the main features of the small villages. The towns were small in number of population and the people depended on each other to supply different products such as vegetables, breads, grains, animal products, etc.

Nomadic bedouins who wandered on a rainfall basis, lived in tent communities integrating some temporary mud and straw structures into their communities. The nomadic bedouins are intensely loyal to their own tribes and basically stayed to themselves in the desert areas.

The urban settlements before World War II were mainly walled cities composed of traditional 4-5 storey coral block houses or 2-3 storey low-rise row housing. Extended families lived on the different floors of the dwellings. The street level was reserved for visiting guests, and women's and men's quarters were separated. The city dwellings either had inner courtyards or utilized roof terraces for summer sleeping and outdoor
living. Much of the urban housing was rented at low prices by higher-income landlords who lived in very large townhouses. The basic design of the urban dwellings as in accordance with traditional Islamic and Saudi cultural and social values, emphasized family living, privacy and separation of men and women when entertaining.

The social structure of the towns and villages consisted of groups of very cohesive communities where each community or 'hara' would differ in terms of economic activities (i.e. fishermen, shopkeepers and merchants, craftsmen, carpentry and ironsmiths, etc.), levels of education, and places of origin (i.e. tribal ties of settled bedouins, national ties of pilgrims who had immigrated to the Kingdom). The urban atmosphere was always very friendly with a great deal of social harmony. The narrow streets provided social gathering places for men where tea and coffee would be served in local coffee houses. There were few automobiles and donkeys were the main type of transportation besides pedestrian traffic.

Migration to the Urban Areas

During the 1950s the migration trend started and sharply increased during the period 1970-80 with a shift in the rural to urban population of approximately 22%. This migration was encouraged by the government for two main reasons. One was to encourage nomadic tribes to settle in order to solidify the population in more manageable locations. The other was to mobilize a workforce to compensate for the shortage of manpower
needed for the infrastructure development effort.

The rural to urban Saudi migration trend, as well as the great influx of foreign laborers during the 1970s, and the demolition of a great number of older housing stock in the urban areas taken for urban renewal and infrastructure construction, put a great strain on the housing market. Further, with the increasing number of low-income households coming into the city from the rural areas, meeting a housing shortage, rising costs due to inflation and high costs of housing in general, were forced to live in overcrowded accommodations in the inner cities' tenements. They usually lived with friends and relatives already located in the cities. As the inner cities became filled, the in-migrating people next settled in squatter areas or land granted to them at the peripheries of the major cities. At first, commitment to the urban setting by both bedouins and rural inhabitants from the villages or farming areas was not firm (as in the desire to build permanent structures on the outlying land) and there was the expectancy that they might return to the rural or nomadic way of life at any time. In many cases, only heads of households and young men came into the urban areas looking for employment, intending to return after they had acquired savings from their incomes. However, as in most developing countries, after a period of time, many of the in-migrating men brought their families to live in the cities as their expectancy for raising their standards of living according to modern lifestyle
was growing and they were becoming more committed to the urban setting.

We see in the migration process the beginning stage of the transition from the traditional way of life to an urban one. The rural villagers and bedouins were experiencing for the first time access to educational and healthcare facilities and in some cases where the migrants lived in the inner city tenements, access to the modern aspects of life such as utilities, television, radios, transportation, etc.

**Socio-Economic Characteristics of the Low-Income Households**

**Income** - In the early 1970s up to 46% of the population of the major cities of Jeddah and Riyadh were considered to be low-income. During this time the low-income were listed as having incomes of less than SR 300-400 ($85-$125)/month. The next income group which is classified as low-middle or moderate are up to 30% of the major cities' population and made about SR400-SR 1000 ($125-$285)/month. If we compare the incomes of these two low-income groups to the minimum rent for housing (one-bedroom with so-called water closet) during this period which was running about SR 300 ($85)/month we see that it represents over 75% of the lowest income group's month wages and about 43% of the moderate group's monthly wages. Clearly, if these amounts were spent on housing there would be little left for food, clothing, transportation and other consumer goods. During the mid-1970s when housing prices rose by huge annual percentages and inflation reduced the real spending power of the increasing incomes, the lower income
groups had difficulty in keeping up with costs. The government, however at this time was supplying some subsidies for food, utilities, gasoline, social services, healthcare and educational, called "social benefits" that added approximately 29% to the average incomes during the period of the second plan. 5

**Employment** - Low to moderate income groups already living in the urban areas before migration were mainly engaged in service sector and government sector jobs by the time of large-scale population growth in the major cities. For the migrant portion of the low-income population we see a largely unskilled and inexperienced group of people in terms of urban employment skills. In the rural areas, the traditional economy supplied the rural population with mainly agricultural skills and craft-making skills. Bedouins, who had wandered in the deserts for hundreds of years were herdsmen. Now in the city, this portion of the population did not have the necessary training to enter construction and other urban economic employment activities. The bedouins particularly viewed menial tasks as degrading and therefore stayed mainly to themselves in their settlements and continued to live off their animals and small agricultural plots they were cultivating at the outskirts of the major cities. The villagers and rural migrants became engaged in either formal or informal service sector jobs such as taxi-driving, trade, carpentry, municipal jobs, etc. Some migrants entered training programs to gain basic skills to become part of the construction
laborforce. Further, the children of migrants have been gaining better educational and technical training to become eligible for higher skilled jobs.

**Household Characteristics** - Briefly, we see in the low-income households large dependency ratios with many children under the age of fifteen. The average family size nationally was 6.5 persons however it usually is higher and the number of foreign single men in the Kingdom has reduced this average size statistically. Women, except engaged in informal activities such as bread-baking and cloth-making, are not part of the workforce. Traditional families have many generations living together and keep privacy of family matters a priority.

**Types of Housing for the Low-Income and the New Form of Human Settlements**

Low-income households occupy several types of housing in the urban areas. One is the inner-city tenement which have become increasingly crowded with the in-migration of friends and relatives from the rural areas. Until the late 1970s most of these were without modern plumbing or electrical connections, and although they have now received electricity and for the most part water and sewer connections, they still remain substandard in terms of structural standards and density standards. We see many roof shanties constructed to rent out for extra income or to accommodate expanding families. Where massive demolition has not taken place, the old neighborhoods remain the same with narrow and irregular streets. Older tenements have in many cases
been rented to foreign laborers and the social structures of the older neighborhoods has changed.

Recently constructed low-rise vernacular houses are another type of dwelling occupied by low-income households. As the inner cities filled, the spill-over population able to afford materials and either squatting on land or claiming land through legalization procedures have constructed bedu-style houses which are one-storey cluster housing of traditional design built out of indigenous materials and domestic cement. As the cities grew, these neighborhoods were serviced by city utilities and roads.

A third type of housing for the low-income are improvised shelters usually constructed on land granted to low-income households or in squatter settlements. Up to 10% to 15% of an average town or small city has improvised shelters which are usually constructed from scrap metal, canvas, wood and palm. In cases where land is illegally invaded, these structures are quickly built at night and to establish some sense of legitimacy, mosques are rapidly constructed out of cement block (of a permanent nature) so to discourage law enforcement officials from clearing the squatter settlements. Even where settlements have been legalized or land has been officially granted to low-income households, little servicing of city water, sewers, electric utilities, paved roads and transportation links have been provided by the municipalities. Informal shops and businesses have been established in many settlements to provide the communities with the needed commercial
activities such as shops selling charcoal and fuel supplies, groceries and vegetables, clothing, etc.

In the urbanization process, we basically see a rapid change in the form of human settlements in the major cities. The close-knit inner city neighborhoods have been disrupted for the most part by demolition, pollution, noise, automobile traffic and other congestion, and streets have been widened and other infrastructure constructed which has divided and changed the physical environments. Pedestrian traffic is no longer the social-type event it was where many residents gathered in the streets and drank tea and coffee. Great numbers of city dwellers have been displaced to outer-lying areas of the cities because of the urban renewal efforts. The higher income households have moved to richer suburbs, and the lower-income groups have moved to poorer sections where there is less access to transportation, and the resources of the cities. Lower-income families who had previously been able to afford adequate housing in many cases have been negatively effected by the removal of the low-rent traditional structures which have been demolished. They have either been rehoused in newer cluster housing or were altogether left without housing and forced to resettle on government land or in squatting areas. The friendly, close-knit atmosphere is mostly gone in terms of the overall social fabric of the cities and tall modern commercial, residential and government buildings, wide streets, and thousands of cars and buses congest and physically
Basic Origin and Growth of Squatter Settlements

Squatters basically come from five sources in Saudi Arabia. Firstly, squatter settlements have existed in some urban centers, particularly in the western part of the Kingdom in Jeddah, Mecca and Medina for hundreds of years. Their inhabitants are permanent immigrants who were pilgrims to Mecca and Medina and never returned to their original countries. They settled in squatter areas because they could not gain formal employment and housing in the Kingdom or because it was socially hard for them to integrate themselves into the indigenous population's communities. Not until the economic development effort of the oil boom years did this sector of the population gain employment as unskilled laborers or in service sector jobs.

Other squatters are from the rural areas, are the displaced inner city residents described above or are foreign laborers who have not been provided housing by their employers. Still another source of squatters is bedouins who have invaded the land for profit. They have claimed the land, knowing that the government would not remove them in most cases, constructed improvised structures and resold them either to rural migrants or to foreign immigrants, then continuing this process of invasion again in another location as professional urban pirates.

Squatter Settlements in the Three Major Metropolitan Areas

Squatter settlements have been established primarily in the three major metropolitan areas of Riyadh, the Dammam-Al Khobar-
Dhahran area, and Jeddah. In Riyadh, the squatters currently occupy more than 3.3% of the residential land and have invaded other unused government or vacant land near government buildings, the airport and the University. In Dammam there are squatters in five areas with the largest settlement called Shorelane. Over 5% of the housing in the Dammam area is considered shanties in squatter settlements. In Jeddah, the largest city, we find the greatest amount of squatters. There are approximately 51,000 shanties which is about 30% of the city's total housing stock. Further, in the low-income section of the city, south of the central zone in the Sabeel area and squatter areas lying beyond, are located 92% of the city's shanties. In this area approximately one-half of the total population of Jeddah is concentrated (with up to densities of 4 persons per room.) Those people not living in shanties live in low-income row houses.

**Government Attitudes Regarding Low-Income Housing and Squatters**

It is my opinion that the government views the low-income housing problems as short-term. This is probably the reason that it has tolerated squatter settlements but done little to upgrade them and why the slum areas have been slow to receive infrastructure and municipal services. The slum areas do not fit the image of the new modern cities that the government is striving to create through its immense and wide-ranging urban projects and urban renewal of the areas is most likely the plan to deal with slums in the future. The government sees positive signs in the rising per capita income, relatively zero unemployment for those willing
to work, and a health diversified economy as a basis for projecting better overall living conditions in the years to come. It is true that the standard of living is rising but these statistical indicators of economic growth will not serve as indicators of improvement in housing conditions for the low-income. As we have seen in the design of public housing projects, the move has been towards creating modern high-rise buildings as part of the low-income housing solution, this fitting into the image of a modern, western-style urban environment. However, if the government does indeed plan to solve low-income housing problems through offering such units to low-income households, I believe it has misjudged the needs of the urban poor and that low-income households will never be able to adjust to living in such structures. The third plan indicates however, that the government has recognized such misjudgments about the form of public housing it has planned in the past, as no further rush programs are being initiated during the third planning period.\textsuperscript{15}

The move now is to lower-rise cluster housing for the low-income. However, we must continue to question why the serviced plots targeted in the second plan have not been produced, and what indeed is the government intending to do with squatter areas when the municipalities fully implement their master plans? Published plans state many squatters might lose their investment in improvised shelters if they interfer with planned development, implying clearance. But can squatter settlements be cleared and to what extent? Can thousands of households once again be displaced in the urbanization
Attitudes Towards Squatter Settlements – The government has not actively encouraged invasions of land, especially on private property. In some cases it has granted land to bedouin tribes to make firm their support as well as to ease their transition into the urban setting so that they will remain settled and not return to the nomadic way of life. Claiming land has been the primary method of settling on the peripheries of the cities and in Islam, we must note, that if useless land is reclaimed for agriculture, or as it has been interpreted for urban cases, if a structure has been built on land to increase its value or bring it to life, it can therefore be claimed under Islamic rights of ownership.16 This has been a major force behind the growth of squatter settlements. Although formal legalization has not been granted in many cases or is still in legal dispute, or is going through a long bureaucratic procedure of tenure, the government informally accepts such squatting. Therefore, much building, subdividing and reselling has taken place since the early 1970s. I think that the government recognizes that the squatter settlements also at the present time answer many of the low-income housing needs of the growing city populations. Though most lots have not been formally serviced and formally incorporated into the individual municipalities' master plans, they are serving a purpose: to house displaced inner city residents, to accommodate in-migrating rural inhabitants and foreign laborers who have not been housed by their
employers, and to give bedouins incentives to stay in the cities through profit-making opportunities available to them in the squatter settlements. They are also the source of many informal economic activities, manpower requirements for formal service sector and construction sector jobs, and even though there are not active political considerations to be made to gain support by low-income groups (i.e. through elections, which do not occur in the Kingdom), the squatter settlements provide a transitional framework for the low-income entering the cities and therefore serve to hold down dissatisfaction among rural migrants and bedouins who otherwise could not be accommodated as they enter the urban areas.

Form of Human Settlements Envisioned in the Three Plans - As I mentioned above, the government is mainly trying to create modern, western-style urban environments. The majority of residential and commercial buildings constructed in the last fifteen years in the major cities have been modern, cement, steel and glass structures, usually in the high-rise category. I think that in the view of government planners, they regard the low-income portion of the population as being able to adapt to living in modern, up-to-standard apartment complexes and have therefore encouraged this design in both public programs and in the private sector housing development effort. Specific target groups for such projects have not been properly identified, and investigations providing detailed data regarding the needs and preferences of low-income groups in relation to housing design have not been achieved.

Under the constraint of housing shortages, I believe the government
thinks that providing finished units on the market, the low-income would immediately be willing to relocate to these buildings. Considering that much of the population has come from outside the urban areas of the major cities in Saudi Arabia, from such countries as Yemen, Syria, Sudan, Indian, Pakistan, etc., or from the rural and desert areas of Saudi Arabia settling in squatter settlements and other inner-city neighborhoods, a rapid move into the high-rise projects would be too drastic a change. The step would be too quick and too large.

**Government Policy Towards the Urban Poor and the Urbanization Process** - The centralized structure of planning for low-income housing development has kept the planners in Riyadh, relied on western consultants' advice, and utilized western architects, and in many cases foreign contractors. Large contracts have been given to foreign construction firms as we see in the cases of the rush housing projects. For the Jeddah Towers rush housing project, approximately SR 2 billion ($57 million) was allocated. For the Dammam rush housing project the cost was SR 1.8 billion ($51 million) and for the Riyadh project it was SR 1.23 billion ($35 million). During the first ten years of the development period, little attention was given to investing in the low-income neighborhoods or squatter areas. Injecting such large amounts of capital into projects that have not been sufficiently investigated regarding the real needs of the urban poor has basically resulted in a situation where planners and policy makers have not effectively
allocated resource of the cities and government to the low-income groups. Also planners have not effectively considered the time factor in the transition from rural to urban lifestyle in the design of their public housing projects. It has not considered the tight ethnic makeup of neighborhoods where low-income groups usually tend to want to remain together for reasons of kinship and cultural traditions and lifestyle, and to be able to continue their informal economic activities which have developed in squatter areas and low-income neighborhoods to provide them with extra means of acquiring incomes, and where they feel they have more control over the dwellings they live in through construction and improvement of improvised dwellings. Since the low-income groups are such a high proportion of the major cities' populations, I feel that the planners must go to the local level to actually discover where and how to allocate resources, as opposed to investing such great amounts in ill-designed projects such as the rush housing schemes.

The basic problem appears to have been the institutional deficiencies in the strongly centralized bureaucracy that has resulted in such ill-designs of public housing programs. It has been hard for the planners to understand what is happening at the local level. Also bureaucratic delays and red-tape in allocation procedures have delayed or altogether deprived the urban poor from getting the needed resources to improve their neighborhoods - such as city servicing to slum areas, adequate schools and other social
institutions located at distances convenient to low-income neighborhoods, etc. Because of these institutional deficiencies, I think it has been difficult for the planners to determine what the optimal form of low-income housing can be, why they have basically ignored the needs of the squatter areas and why such approaches of sites and services and self-help programs have been slow concepts to develop in order to upgrade existing low-income neighborhoods.

It appears that the overriding problem for the urban poor has been the rate of urbanization, the slow allocation of resources to poorer neighborhoods in the expectancy that the low-income households will be able to relocate in newer areas after completion of residential complexes, and the lack of government attention to upgrading as a method of supplying the low-income with public housing programs. The greatest problems remain that if conditions continue to be substandard in the low-income neighborhoods, if children are kept out of schools to engage in informal economic activities, and if squatter settlements are not formally integrated into the individual municipalities' boundaries and provided with public works and other city services, development of human resources in these areas will suffer as there will be a basic lack of incentives to develop potential in terms of self-esteem, educational levels and good standards of health. The urban poor must be considered as the prime group to invest in for future economic activity as the growing number of youth will serve as the basic manpower source
in the next ten or fifteen years. Social development in the
city must be encouraged beyond those programs the
government has already provided through the many new schools,
hospitals and other social services already implemented. Housing
is a very important aspect of social development as it provides
the base of social activity, especially in interactions that take
place on the neighborhood level. Family life and religious and
social aspects have always been held very high in our society
and we must continue to emphasize its importance in all aspects of
the Kingdom's development. Emphasis should be placed on urban
environments in terms of its social structures now that most of the
infrastructure has been completed. We must now be prepared to
deal with the current problems developing in slum areas, and
concentrate on improving every-day living conditions, i.e. the
quality of life in the major urban environments. This will include
reducing pollution, noise levels, congestion and planning more
liveable neighborhoods in terms of design of human settlements
and access to the resources of the cities.

Planning Towards a Different Direction - As the third plan
shows evidence that the government has realized the limitations
and misjudgments regarding public housing project design of the
past, we do see a more active attempt to deal with imbalances
that have been created, especially between the rural and urban
areas. The thinking now is to provide incentives for the rural
population to stay in the rural areas through construction of
better roads, infrastructure, schools and hospitals. This will relieve pressure on the cities in terms of housing and land shortages, but more importantly it will help diversify the economy in the regional areas, and help agricultural development. The government does not want a drain on the rural workforce through further migration to the cities. The industrialization process in Yanbu and Jubail will require hundreds of thousands of workers and the development of the agricultural sector through modernized farming techniques and improved irrigation is increasing the amount of rural land possible for cultivation. Considering the overall manpower shortage in the Kingdom, the rural areas must supply their own laborforces. Today, migration has slowed but not really stopped and it will not totally stop as rural inhabitants want to experience the modern urban lifestyle. For much of the youth the move to the cities for better education and employment opportunities will continue to draw the rural population into the urban areas, and continued demand on housing, especially for people entering the urban setting from rural areas will grow. The government must therefore be prepared to deal with the imbalances created in the housing sector which is basically seen in the shortage of low-income housing and the oversupply of higher-income units.

We see a positive trend developing for the urban poor in terms of economic activity. The children of the lower-income groups are gaining better access to education and technical training and since so much of the population is under the age of 15, in ten
years or so, there will be substantial increases in families' incomes due to the earning power of their children as they enter the workforce. The housing situation will most likely improve as more units are placed on the market, with increased incomes in lower-income families, and with the easing up of demand by foreign workforce on housing as the infrastructure process is completed. But will this situation really effect the housing imbalance that exist today? Here will be the crucial time to consider whether the urban poor will want to relocate from squatter settlements and slum areas to scattered locations over the major cities in new apartment complexes, or will they want to deal with the housing problems in the locations and neighborhoods that are already established? This is a question which I think the government will have to examine more closely in its housing policy. Certainly the form of housing that is starting to appear as vacant units on the market (most of which are in empty high-rise buildings) are unsuitable for large low-income families, and in overcrowded situations would become slums in short periods of time. The alternative option will most likely be, that if the low-income wish to remain in their current neighborhoods, the only answer for the government will be to upgrade the areas, slowly and in a systematic way so as not to displace any great portion of households at any one time. If the government, however, does not choose this option and instead approaches the problem of slum areas through the process of clearance and urban renewal it
it must carefully weigh possible reasons for clearance i.e. to clean up the cities' images, to wipe out areas where social problems of disease, crime, etc. can develop, and to fill vacant housing in other sections of the major cities, through relocation. But will such reasons outweigh different approaches for dealing with problems of the slum areas, such as sites and services, self-help and user participation programs to upgrade existing structures, neighborhood revitalization programs, etc.? The question is a difficult one for the government to consider as there are many constraints on the solutions to low-income housing problems. Below I will list such constraints such that a better answer to this question can be discussed in the recommendations section of this study.

Constraints on Solutions to the Low-Income Housing Problems

The basic constraints I see regarding the solution of low-income housing problems are the following.

1. **Policy** - As mentioned before, it appears that the government views the problems of the low-income as short-term. If relocation is planned as a solution, it is to the advantage of the municipalities to keep squatter settlements and slum areas without adequate city services to make relocation easier at a later time. Abundant supplies of housing will be on the market by the end of the third plan, better facilities will be supplied to the rural areas to slow migration
and if not much upgrading is provided to slum areas at the present time, they will be better candidates for clearance and renewal.

- **Institutional Structures** - the institutional structures as this study has described, are inadequate to deal with low-income housing problems. The needs and preferences of the low-income in terms of housing, have not really been addressed. The government has not effectively gathered data on social and economic characteristics relevant to housing in order for its planners to develop suitable designs for low-income housing programs. In order to assess whether the low-income groups could be organized and trained sufficiently to engage in self-help programs, for instance, would take a lengthy and well-designed survey to determine. Also, in this regard to institutional deficiencies, it is doubtful that the branches of the Ministry of Public Works and Housing, the municipalities involved and the housing construction industry could efficiency coordinate a program to supply adequate training, infrastructure and low-cost materials and labor to engage in a successful self-help program. There are basically not many alternative approaches available with the present institutional organizations in place to deal with housing problems.

- **Overload** - The government has had a very loose policy towards low-income housing and hasn't focussed very well
on slum and squatter areas. Most of the government effort has instead been placed on the industrialization and infrastructure process. We should not forget that the Kingdom is very large in terms of area and resources and to set-up an efficient housing delivery system, exploiting the available domestic resources will take a long time. The third plan has chosen to mainly concentrate on rural municipal development and housing as opposed to urban housing problems. The scope and number of projects has simply made it necessary for the government to choose priorities and stages for implementation of its objectives and low-income housing and dealing with slum areas has been low on the list.

- **Land** - Land is at a high premium and very scarce in the inner cities. The land which is presently occupied by slum and squatter settlements will be valuable to the expanding cities in the years to come. Land available on the market is not in the reach of low and moderate income groups to purchase so to become eligible for the REDF program as under the present system land is a prerequisite for government financial assistance for housing construction.

- **Underdeveloped housing construction industry** - Although housing construction represents 30% or more of total construction, a modernized housing industry will take
a long time to establish. Industrialized and prefabricated housing components are still very expensive and rely on imported materials, machinery, and the appropriate technology and trained manpower. It is doubtful that innovative building techniques can be used in the near future to provide the housing construction industry with cost-effective methods of industrialized prefabricated construction methods so to reduce costs and time of housebuilding. The alternative is to continue to build the conventional housing construction industry through utilization of domestic cement, bricks, gypsum, glass, machinery and manpower. However, domestic materials and manpower are in great demand by the industrialization process and infrastructure construction effort, and the housing sector has lagged in terms of gaining adequate access to these materials and manpower.

- Lack of community organization - Neighborhood planning within the municipalities or at local levels is very small. Because of the political framework, organizing in groups is not present. Most of the planning and allocation of resources is done through the national government and ministry regional offices, located in the major cities. Individual municipalities are not highly involved in community planning because most of the revenues are disbursed from the national level through centralized bureaucratic agencies. Where the municipalities do enter
the process in the supplying of municipal infrastructure and public works, this in the past has been poorly coordinated with housing construction. There is no firm framework where individual neighborhoods can gain access to municipalities or to national agencies for the purpose of securing comprehensive planning and development (improvement) of their areas, and therefore individual groups would have a very hard time engaging in their own development efforts at the present time. Also, in many cases, public attitude is poor. Low-income groups, especially, are not accustomed to thinking in terms of working within organized and structured groups where paperwork, meetings, formal communications with public agencies and other processes would have to be undertaken. It will take a long time for the idea of user-participation and citizen involvement to develop in Saudi Arabia, and therefore planning will continue to be in the jurisdiction of municipal and national planners in the area of low-income housing delivery.
CHAPTER IV: CONCLUSIONS AND RECOMMENDATIONS:
TOWARDS A SOLUTION TO LOW-INCOME HOUSING PROBLEMS

This study has examined the causes of low-income housing problems in Saudi Arabia. We have seen that the government policy of relying on the private sector to add the majority of new housing to the market has mainly benefited the upper-income groups and produced little low and moderate income housing. This policy has been criticized as a constraint towards solving low-income housing problems, as it is necessary for the government to more actively intervene in the construction industry to assure that adequate supplies of low-income housing are being constructed. Further, we have seen that the public housing projects undertaken by the government have been badly designed and ill-suited to the real needs of low-income households, and have for the most part not placed significant numbers of units on the market. As a result many squatter settlements have grown and substandard housing in the inner cities has continued to increase, and such areas have not gained adequate access to city services.

One major constraint on solving the housing problem for the low-income has been the deficiencies in the institutional framework that are set in place to deal with public sector housing development. Another problem has been the underdeveloped construction industry where shortages of materials, labor and available inner city land have driven up costs. Therefore, the units that are produced by private sector developers are offered at prices and rentals not affordable by lower income groups. Further, the poor coordination
between sectoral agencies involved in housing and municipal development and between the planning agencies and the private sector has led to many inefficiencies and wasteful projects. The REDF, for example has in the past monitored loans in a loose manner such that construction costs have not been held down, standardized building codes followed, and efficient use of land achieved. Furthermore, the REDF loan program has inequitably distributed credit such that only higher-income groups are eligible for assistance.

Regarding the planning stages of housing development, the highly centralized planning and implementation structure in the government has led to little contact between planners and the people they are planning for. The centralized planning staff in Riyadh has relied on western consultants, architects and contractors to design and implement low-income housing projects that do not meet the needs of the low-income population as evidenced in the rush housing programs. There has not been the necessary feedback and evaluation of programs, or an adequately trained staff of Saudi professionals who could have undertaken detailed studies at local levels to determine appropriate designs for housing programs. There has been an overall lack of criterion present for planning and building standards, as well as for design solutions to meet the needs and preferences of low-income households in terms of type of housing, patterns of residential neighborhoods, and allocation of municipal and government resources.

Basically the recommendations I am suggesting in this chapter
will examine what alternatives and options are possible in terms of planned goals for low-income housing, institutional development, and construction industry delivery systems. I will criticize policy such that the government might take a second look at the importance of dealing with low-income neighborhoods where they are currently located instead of the option of clearing and renewing such areas, which would displace more households in the urbanization process. I will look at where we can learn from our past mistakes and how, over time, we can improve performance in the area of low income housing.

My philosophy here, as a planner, will be to formulate a criteria which will effectively consider the government's goals and policies regarding urban housing for low and moderate income groups and that will be practical to serve as guidelines for actual programs that the government might consider implementing in the near future. I think that it is the time to look at what alternatives may be adapted to better benefit the urban poor.

Institutional Framework

When government structures are highly centralized and when most resources are in the hands of the government, the public cannot rely on the private sector to evenly distribute housing units on the market. It obviously will not provide units where there is no profit incentive. The only alternative in this situation is strong government intervention in housing development efforts. To implement effective programs for the lower income households
government policy towards the housing market must be clear-cut stating exactly what types of public housing programs it intends to pursue, after comprehensive studies have been completed that determine the exact needs of this segment of the population. Effective planning design and implementation must be supervised by government agencies to assure coordinated and planned development with all sectors and private companies involved in the process. Since most problems occur in the implementation stages of development, we have to consider what areas can be strengthened in the existing institutional framework supervising the housing construction effort. We see the REDF disbursing financial assistance for housing construction, the Ministry of Public Work and Housing designing and implementing public sector housing projects, and the Ministry of Municipal and Rural Affairs designing and implementing municipal development and coordinating infrastructure necessary for housing development. My first recommendation will be in the area of strengthening the institutional organization of these agencies and the coordination between these agencies so to better design and implement housing programs.

Regional and Local branches of the Agencies - It is recognized that monitoring is difficult in a highly centralized framework where information flow is frequently bottlenecked and where officials at the top of the planning structure do not get adequate feedback and evaluation of what is happening at the site of implementation of projects. Many projects in Saudi Arabia get
to the stage of started construction and then stop for long periods of time because of design changes and bottlenecks of materials and labor. The decision-makers at the top who have authority to make changes are many times not notified in a timely manner or do not want to make independent decisions which have not been initially worked out with foreign consultants involved in the projects. Therefore, work stops or is delayed causing cost-overruns and inefficient delivery. I propose a second look at the system of project implementation such that greater responsibilities are given to regional branches to function in decision-making about projects after the planning and budgeting stages have been completed at the national level. We must gain a better monitoring and evaluation system, where authority can be deconcentrated to lower administrative units (located in the major municipalities) so to analyze situations in a faster manner and make decision regarding the particular problems encountered in the implementation stages. There are regional offices of each ministry already in place in the major cities and I propose to place experts in the field of housing design, construction methods, and environmental and urban design in these offices to solely deal with implementation problems. These professionals could monitor more closely the implementation stages and report back to the national offices of their agencies. However, they must be given full power to analyze the problems and suggest alternative solutions. Until recently regional offices have had little input into actual decision-making and have not
been involved in formulating much policy. If we are to call for an effective administrative system, there must be decentralization of decision-making powers regarding technical aspects of planning and regarding dealing with unforeseen problems encountered during construction. Specialized division of each agency dealing with housing (i.e. the MPWH, MMRA, and the corresponding branches of the individual municipalities where housing development is taking place) must be in contact with each other on a daily basis so to make coordinated decisions regarding changes. Further, specific divisions should be formed for housing development to arrive at feasible approaches to low-income housing problems and overall residential patterns. Such specialized divisions could be established to: gather information and do impact studies to determine where sites and services would be appropriate in a particular urban center, where upgrading could supply up-to-standard housing on the market, and where renewal or preservation of older neighborhoods could be feasibly implemented. Highly trained Saudi experts would be necessary to head each division at the local level, and I believe such personnel can be found on the existing job market at this time. This proposed organization of specialized divisions could be supervised by the Council of Ministers at the national level to reinforce coordination among agencies. The budgets of each division would continue to be planned and allocated at the national level of the corresponding agency, however there must be a faster system of applying for additional funding within
a fiscal year when price overruns are met.

**Studies and Surveys** - Studies of projects are necessary to provide information for these branch divisions. They should be accessed through a centralized computer system to establish a unified database regarding socio-economic and socio-environmental findings to reduce duplication of studies and conflicting demographic and economic statistics. For this purpose, I think it would be wise to acquire the most workable computer programs to present data in understandable terms to all agencies utilizing this system. From such data it would then be easier to design standardized programs. Also, I propose small-scale studies where after one study is completed and analyzed and appropriate findings are determined and entered into the computer system, other programs could be designed or changed considering the findings of the previous study. In this way we would not have to wait long periods of time for aggregate studies to be completed and analyzed but we could work on smaller-scale levels, looking at what is workable or infeasible within a certain project implemented. Also, limiting studies to smaller-scale studies, i.e. of neighborhoods as opposed to entire cities, particular characteristics of different income groups can be more focussed and more easily determined through the data-gathering process.

**Incremental Projects** - Smaller-scale projects, carried out in incremental stages should be considered. This would make possible more manageable budgets and utilization of experts teams
in the implementation stages. The advantages of incremental projects is greater ease in implementation, smaller scale allocation of funding and smaller-scale dealing with contractors, architects, planners, city officials, public works, etc. Secondly, these projects would provide a basis for experimentation, where we could learn from each project in stages and better implement similar or progressive projects through the learning process. I think it is very important for Saudi personnel to work on smaller-scale projects in incremental stages, where they will not be overwhelmed by the scope of the projects, and where they can be in more control and not rely as much on foreign advisors and planners. Experimentation and improvement through learning is very important in the development process. As we have seen in the past, ill-suited designs such as the rush housing projects have been repeated over and over, and these structures will stand for their lifetime with all the mistakes of the design incorporated in them. Through smaller projects, the mistakes would be easier to live with. Also, through smaller projects a dynamic process of learning could take place such that we could achieve our own personal solutions to housing problems in Saudi Arabia that would be on a scale appropriate to our urban experience. We must accumulate experience through successive projects and learn how to implement more innovative techniques and create approaches by assessing the limitations of design solutions and the institutional bottlenecks particular to our urban settings. This is the only way we can
really define and refine our institutional framework - what processes of evaluation and feedback can work for us in our particular geographic, climatic, cultural and social environment. We do have the financial resources to experiment, which as in most developing countries limits such experimentation.

We must also learn how to balance the financial resources available with materials, manpower and land-use to effectively and efficiently reach a standard for housing development. The process of studies and evaluations suggested above could provide a criterion for future incremental projects if through proper experimentation, a workable format could be determined regarding what is available to us in the way of delivery systems for low-income housing. This would include a detailed examination of the housing construction industry. Also criteria is needed regarding the most suitable forms of human settlements in the urban areas. We have seen in the past ten or so years repeated approaches to the urban setting in the form of high-rise/high density buildings randomly located throughout the cities. Urbanization has continued in an unplanned pattern and the result has been a sprawl-effect. The only way to counteract this trend, in my opinion, is to slow down growth, examine our mistakes and proceed on smaller-scale incremental projects.

**Housing Industry and Government Intervention**

The cost of housing materials and labor, as well as land has been the basic problem for providing affordable housing to the
low and moderate income population. A problem has existed for even the middle income groups as land shortages have become greater and there is a higher demand on building materials and the construction laborforce. In many cases the quality of construction has been poor. Because of these constraints existing in the construction industry, it will take time to organize it better and to create more even flows of materials and laborforce. The government, having huge financial resources, must attempt to accommodate the low-income in a more balanced way so that they will not have to spend such high percentages of their incomes on housing - draining spending power allocated for other consumer needs. There are few direct subsidies available for rents, which if provided, might ease the housing shortage somewhat for people willing to move into vacant high-rises already on the market.

The government should approach the housing industry to find a solution for the low-income housing problems. The industry should be made to operate more efficiently, gain better access to materials and be more regulated in terms of building standards so that poor quality construction will not be permitted to be delivered. This will require some government subsidies for materials as well as closer monitoring regarding building standards and materials used. Land speculation must be stopped and available vacant land should be purchased by the municipalities for future planned growth. Greater infrastructure servicing must be supplied to outlying areas to make expansion of suburban areas possible, and to better plan for individual neighborhood and community development.
Providing incremental programs as described above would help the housing construction industry develop a more efficient manner of delivery if manpower can flow more evenly through the system and bottlenecks could be cut down by more planned progression of housing projects. We need to create a delivery system where all sectors of housing development will be heavily coordinated, where infrastructure will be guaranteed to be put in place by government and municipalities before construction starts, and where permits and zoning laws will be required. This all implies greater government intervention in the housing process. Problems which might occur, however, will be bureaucratic delays and bottlenecks where greater government involvement is considered. A system must be designed where processing and granting of permits will flow evenly and where experienced inspectors and other government officials will be engaged in the monitoring system. Without this the housing industry and speculators will continue to exploit the system through buying up valuable inner city land, utilizing available manpower and materials for higher-income housing construction, and therefore causing shortages and higher prices for low and moderate income housing construction to continue.

Innovative Techniques - It is doubtful at the present time that the industrialized housing will be a solution to providing cost-effective low-income housing. I do think over time, it could be made feasible, however, the Kingdom has adequate resources to utilize conventional building practices and materials for vernacular type housing. It is also doubtful that at the present time
self-help and user participation programs will succeed in Saudi Arabia. The social framework is not one of community organization. The solution to be found here, I think, is in government-administered sites and services and upgrading programs, where core houses can be provided by the government on serviced plots and where government technicians and hired contractors will build or upgrade housing either on newly serviced areas or on existing low-income sites. I do not believe that mass relocation is a feasible idea whereas low-income groups have gather in ethnically and socially cohesive groups in the urban settlements and have formed strong ties, mostly likely not wanting to be disrupted further by the urbanization process. The modern structure (i.e. high-rise buildings) are not suitable to accommodate low-income groups' lifestyle with large families, low income going towards monthly rentals, and where the urban settlements serve as places of informal economic activities. The government has adequate financial resources available to address the upgrading approach, although I believe there will be problems in designing workable upgrading systems. I do think, however, that if properly designed and implemented, upgrading can be the answer to inner city low-income housing problems. Studies are needed to evaluate the specific needs and desires of individual neighborhoods as I have suggested above, and this should be the first step in any upgrading program. I also think that studies should be done to determine exactly what proportion of monthly income can be allocated to upgrading efforts, beyond what
be offered in government financial assistance. We must also
determine what the low-income, especially rural in-migrating
groups' commitment to the urban communities are. We must
recognize that the Saudi population is very varied and not
homogeneous, especially with the diverse amounts of immigrants
from other countries in the Kingdom. It is very important to address
the individual needs of each community and this will be a massive
undertaken but a necessary one.

My basic recommendation is therefore that the government
must form a clearer picture of its urbanization process and
define what its exact attitudes are towards the urban poor.
I think by individual neighborhood socio-economic studies and
by environmental impact studies, the government planners can gain
a better idea of what the low-income want and need in terms of
housing design and the residential patterns of their urban settlements.
A criteria is needed on which to base new housing projects, a
criteria is needed for providing different urban areas with the
needed resources (such as public works, commercial districts,
mosques, schools, health care centers, etc.). The government should
now strive to more evenly distribute the resources of the cities.

Specific Recommendations: Guidelines for Low-Income Housing Programs

Below are listed some specific recommendations which I think
might help in forming guidelines for future low-income housing
programs. Some of these are stated in the third plan as objectives,
but it must be stressed that policies and objectives have not
always been implemented. I think it is crucial to follow such
steps to create equitable programs for low-income housing.

1. Socio-economic and environment studies should be undertaken to determine affordability of housing, willingness of individuals to upgrade their existing structures, preferences of housing design, types of neighborhoods desired in terms of cultural and social structures, etc. These surveys are necessary for planners to determine the overall direction of low-income housing policy to decide on what type of housing design is appropriate, what scale of neighborhoods and communities will best benefit the low-income portion of the population, and what kind of financial assistance would be most beneficial (i.e. subsidized rents and building materials, grants of land and core housing, interest-free loans for purchase of homes, interest-free loans for upgrading, etc.)

2. Legalize and upgrade squatter settlements and low-income neighborhoods. Provide technical assistance and laborforce to help upgrade substandard and improvised shelters, provide adequate infrastructure and municipal services to maintain neighborhoods. Implement incremental construction programs for upgrading so as not to displace a great number of households during the construction period at any one time.

3. Implement innovative and experimental housing projects on a small scale.
preserve traditional architecture where feasible. Not all of the older housing can be preserved or upgraded as there are structural defects and building materials (i.e., dried mud) which are not suitable to adapt to modernized electrical wiring or plumbing systems. We must assess what structures should be preserved, what neighborhoods should be retained as traditional settlements, and what structures and areas could be serve for clearance and renewal to best utilize inner city land. We must also assess what the best replacement design are that can be integrated with the older buildings so as not to lose the traditional forms of the older sections of the cities where renewal is the best solution.

Land-use must be assessed. Speculation must stop and the government should acquire as much of the vacant land as it can for future planned development. Master plans should be implemented as orderly as possible and low-income and squatter settlements should be adapted into the formal boundaries of the cities and included in land-use policies of zoning and standardization of codes. However, some flexibility should be approached in the treatment of squatter settlements, where roadways are usually narrow, and building patterns irregular.

Better coordination should be established between the private sector and public sector in order to achieve an
overall set of policies and goals for housing development. The whole housing picture should be drawn and it must be determined exactly where the private sector fits in. Unplanned growth should not be tolerated any longer, and therefore more monitoring should be put in place regarding private sector construction and use of REDF credit.

The REDF should reform its policy of granting loans only to landowners. It should develop a policy that allows purchase of already built houses as several Saudi planners and architects have suggested before.\(^2\) Where such mortgages are given, the should have low monthly payment schedules to be within the affordability range of low-income households. In cases where poor do not have initial downpayments, I think the government should waive such requirements. I think the commitment to maintaining houses, whether initial investments are made in the form of downpayments will be present in most households, as the Saudi people take pride in their homes and regard family life as the most important aspects of their lives.

Better accommodations should be supplied to foreign laborers, especially those who have families with them. Lower densities per room and better facilities in terms of plumbing and electrical connections should be supplied to foreign laborer households. It is important to give this segment of the population better accommodations as
frustrations tend to produce social problems.

We should actively engage in a reviewing system to learn from our mistakes. Workshops for planners and consultants are valuable in my opinion, to assess where western designs can be integrated into our traditional forms of human settlements and housing design. We must examine what has gone wrong in the past fifteen years, and what has gone right. To examine what specific Islamic values are worth preserving in terms of design (i.e. houses with inner courtyards, narrow, quiet streets with neighborhood gathering areas, and other matters relating to our past cultural characteristics of human settlements) is important. Indeed such workshops have been presented by the Aga Khan program at MIT with its seminars on Islamic architecture and housing. I think very valid arguments have been presented in many of these seminars which discuss the advantages of preserving Islamic architecture and designing housing structures that reflect past lifestyles.  

Utilization of existing rush housing buildings. These buildings can gain back some revenues to invest in low-income housing projects of more suitable design. They can be utilized for mixed-use purposes such as leasing individual towers to companies or businesses to rent as residential or commercial office space. Leasing to
companies who employ foreign professionals who would find such housing suitable to their needs. Some towers could be rented to lower and moderate-income Saudi households willing to live in the high-rise structures and rental subsidies could be provided to make monthly payments affordable. They could also be rented to middle-income younger Saudis who are better adaptable to western structures (as many have been schooled in the west).

In conclusion, I would say that the government is committed to providing decent, safe and sanitary dwellings to the entire population, however past methods have followed deficient approaches to the problems inherent in housing development. We have seen that government priority in the first two development plans has been on infrastructure development and the industrialization effort and the housing sector has lagged in many instances. The third plan is more ambitious in terms of housing construction but this is primarily planned for rural areas and the urban areas still are in great need of government-coordinated and government-supplied housing for low-income groups. The private sector clearly cannot deliver units on the market which will be affordable by low and moderate income households.

A realistic goal now can be to refine the institutional framework put in place to deal with housing in the Kingdom. There should be more efficient planning and implementation of projects especially for the low-income, through more decentralization of
administrative responsibilities in those agencies involved in housing development, and a greater effort to evaluate and monitor housing projects. We should approach housing projects on a more limited scale than was done in the public sector rush housing programs. Design must be more suitable to meet the needs of the low-income households and emphasis should be on the form of human settlements rather than creating the most number of units in the most economical manner. Each region and municipality should assess its own characteristics and income and employment problems in order to design communities which will best accommodate its residents.

We have had a time constraint, an overload on the administrative machinery, and an underdeveloped housing construction industry, all of which have caused deficiencies in the housing programs. It is possible now to deal with these constraints, as the housing stock has grown, infrastructure is almost completed, and more manpower and materials will be freed for supply to the housing industry. It is time now to work on smaller scale projects, to experiment and to innovate in order to find out what housing and community designs are the best for us at the present time. Planned growth must be implemented and a great deal of responsibility should be assumed by the government to assure that low-income households are provided either with subsidies to rent on the open market, or with financial assistance and better municipal services so that they can upgrade, construct or purchase their dwellings.
Overall, we should seek to integrate the older housing with the newer construction in a sensible and tasteful urban environment, and coordinate public and private sector development into a comprehensive pattern of residential growth.
NOTES

Chapter I


12. Walpole and Bastos, p. 9.


17. Mallakh, p. 22.


20. Mallakh and Mallakh, pp. 165-166, 175.

21. Walpole and Bastos, p. xli.


27 Third Development Plan, pp. 43-44.

28 Mallakh and Mallakh, p. 10.

29 Mallakh and Mallakh, p. 10.


31 Third Development Plan, pp. 10-11.


33 Al-Alak, p. 51. Also see Mallakh and Mallakh, p. 183.

34 Third Development Plan, p. 62-71.


36 Mallakh and Mallakh, p. 162. Also see Third Development Plan, pp. 107-110 and 443-453.

Chapter I:

1 S. Al-Hathloul, diss. Harvard University, 1975, p. 40. The source of Mr. Hathloul's figures are the Central Department of Statistics, Kingdom of Saudi Arabia.

2 Al-Hathloul, p. 40.

3 Al-Hathloul, p. 40.

4 Al-Hathloul, p. 67.

5 Al-Alak, p. 62.

6 Mallakh, p. 191 and p. 424. Also see Ministry of Planning, Kingdom of Saudi Arabia, Second Development Plan (Riyadh, Saudi Arabia, 1975), pp. 53, 97, 510-512. Also see Third Development Plan, pp. 440-442.
Chapter II:


5 First Development Plan, p. 193.

6 First Development Plan, p. 193.

7 Second Development Plan, p. 510.

8 First Development Plan, p. 193.

9 Second Development Plan, p. 508.

10 Second Development Plan, p. 508.

11 Second Development Plan, p. 509.

12 Second Development Plan, p. 511.

13 Third Development Plan, p. 443.


15 Third Development Plan, pp. 452-453.

16 Third Development Plan, p. 452.

17 Third Development Plan, p. 453.

18 Second Development Plan, p. 509.

19 Second Development Plan.

20 Bakr, p. 1140.

21 Mallakh, p. 309.

22 Second Development Plan, p. 509.

23 Second Development Plan, p. 515.

24 Second Development Plan, p. 515.

25 Bakr, p. 1139.

27. Third Development Plan, pp. 436-439


29. Third Development Plan, p. 441.

30. Third Development Plan, p. 441.

31. Third Development Plan, p. 441.

32. Third Development Plan, p. 441.

33. Mallakh, p. 208.

34. Third Development Plan, p. 441.


37. Farahat and Cebeci, p. 213. Also see Third Development Plan, p. 441.


40. Third Development Plan, p. 448.

41. Third Development Plan, p. 452-453.

42. Third Development Plan, pp. 451-452.

43. Third Development Plan, pp. 452 & 453.


45. Third Development Plan, p. 449.
Chapter III:

1 For discussions of courtyard houses and natural cooling effects see Christian Winterhalter "Housing Patterns in the Eastern Province of Saudi Arabia" paper. Also see Jamel Akbar, Support for Courtyard Houses, diss. M.I.T. 1980.

2 Yousef M.O. Fadan, Urban Dwelling Environments: Jeddah, Saudi Arabia, diss., M.I.T., 1977, p. 5. Also see N.H. Asaad, Study of the Housing Situation for Low-Income Families in Jeddah, Saudi Arabia, diss, University of Newcastle upon Tyne, 1977, p. 38. These dissertations list the rate of low-income population in Jeddah, and it can be assumed to be about the same in Riyadh.

3 Asaad, p. 38. Also see Fadan, p. 9.

4 Asaad, p. 39.

5 Third Development Plan, pp. 15 & 55.


7 Al-Alak, p. 62.

9 Talib and Al-Jesser, p. 350.


11 Boon, p. 850-852.

12 Asaad, p. 28. Also see Fadan p. 9 and Julian Smithson, "Urban Development of Jeddah," Middle East Construction (March, 1980), p. 3.

13 Asaad, p. 28, Also see Fadan, p. 9.

14 Assad, p. 29. Also see Fadan, p. 9.


17 Talib and Al-Jesser, p. 350-353.

18 Al-Alak, p. 63.

Chapter IV:


3 For discussions of preservation of Islamic architectural styles and designing housing structures that reflect past Islamic lifestyles and settlements see: Farahat and Cebeci, pp. 209-227.
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