TOWARD SUCCESSFUL HOUSING STRATEGIES IN EGYPT

by

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(ABSTRACT)

The purpose of this research was to develop a framework for Egyptian urban housing strategies, based on an understanding and consideration of critical factors that affect the success or failure of strategies. It is intended as a contribution toward modeling and demonstrating a necessary pattern of wholistic strategic thinking.

The need for the research in terms of the Egyptian housing situation and the varied approaches to the resolution of the housing problem is demonstrated. Also introduced are the general methodology and organization of the work. An integrated concept of housing as a need, a process and a product is presented and developed into a housing model applicable to Egypt and possibly other developing countries with similar circumstances. A main feature of the model is the critical impacting factors that affect the progression of housing strategies and which may ultimately determine their success or failure. The model and the methodological procedures derived from it, were applied to the Egyptian housing situation. Through reconnaissance of the Egyptian environment, historic analysis of past experience, and assessment of the current situation, a set of impacting factors were identified and analyzed. Implications of the research are discussed in relation to Egypt and other developing countries, and few personal recommendations are also presented.
ACKNOWLEDGEMENTS

In the name of God Most Gracious Most Merciful

'Read in the name of Thy Lord who created; created man from suspended clot. Read, and your Lord is the Most Generous Who taught with the pen, taught man what he did not know'.

My first and utmost gratitude is to the Almighty God, the Supreme source of Knowledge and Light Who led me through this work, sustained me with faith, perseverance, patience and enthusiasm; Who taught me to care for the poor of the world and for those in hardship due to stressful conditions.

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Meaning of first verses revealed in the Holy Koran.

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1.0 CHAPTER I - INTRODUCTION

This research is intended as a modest contribution toward modeling and demonstrating a necessary pattern of holistic strategic thinking in the context of the Egyptian urban housing situation. In this chapter the need for the research in terms of the Egyptian housing situation and the varied approaches to the study and resolution of the housing problem is described, followed by a clarification of the purpose of the research, its usefulness and approach. The general methodology and organization of the work and the sources used are also introduced.

1.1 NEED FOR THE RESEARCH

In recent years, Egypt has been suffering an acute housing problem exemplified in an excessive shortage of housing units to meet housing needs; an inadequacy of a large percentage of the available housing stock; a dramatic increase in housing costs that rendered housing prices unaffordable by large segments, if not the majority, of the Egyptian population; and a degradation of the housing environment. The problem raises specific issues, mainly issues related to (a) cost and affordability of housing by various segments of the population and (b) responsibility of the public sector in the housing process. The impact of the problem is most intense with lower income families that constitute over 50 percent of the urban population. In Cairo, the capital of Egypt, the unavailability of affordable housing has lead disadvantaged segments of the population to seek shelter in old tombs and cemeteries. The problem is also becoming evident in provincial cities with the intense economic pressures of recent years.

The public role, i.e. the role of the national government, in the housing process and efforts to alleviate the housing problem have had

---

Footnote:

* Forty-four percent (44%) of the population of Egypt live in urban areas. Most of the rest live in some 4,000 villages with populations ranging from 500 to 10,000 inhabitants. On the whole over 96% of the population live on 5% of the country's territory where the density is 727/km² (Arab Republic of Egypt, 1983).
critical impacts on the evolution of the Egyptian housing problem. Also
critical have been varying circumstances and exogenous events, such as
wars.

Several studies have been made by Egyptian and international teams,
regarding the urban housing problem and proposals for its solution. A
summary of a few important studies is included in Appendix B.

These studies and others include proposals for solutions that re-
fect varying conceptions of "housing," varying perceptions of the nature
of the problem and varying ideological inclinations. Accordingly, their
writers presented varying conclusions and recommendations. For example,
a narrow conception of housing as a "product" has limited the attention
of housing officials and professionals to quantitative aspects of the
housing problem and housing demand. Accordingly the issues raised were
narrowed to efficiency and economy in the provision of housing. As a
result, recommendations or proposals for a national housing strategy have
focused on the goal of increasing housing production to a required level.
Recommendations for action were mainly tactical and efficiency-oriented
(reduction and limitation of housing unit size, increasing recoveries
from investment, lowering standards, etc.). Others conceive housing as
a national real estate wealth that has been unfairly distributed. Ac-
cordingly, they have suggested redistributitional housing policies.

In June 1983, the Ministry of Housing and Reconstruction (MOHR) held
a seminar on the housing problem in Egypt and proposals for its resol-
ution. A folio of a thousand pages was distributed to the participants
to examine and evaluate. That folio included some background information
on the Egyptian housing problem and a compilation of housing legislation
from several countries (e.g., Britain, France, and Romania), with dif-
ferent socioeconomic, political and ideological contexts. The partic-
ipants were asked to study such a compilation, select suitable options
and discuss alternative proposals for the resolution of the Egyptian
housing problem. With emerging democracy and pluralism, the question
posed was: In which way should Egypt go? How and on what basis could
decision makers choose the option most suitable for the Egyptian envi-
ronment and most effective in the current urban housing situation?
The overwhelming housing need compared to the scarcity of material resources, the varying and often conflicting perspectives of the available studies of the situation, and accordingly the varying conclusions and recommendations and the lack of adequate policy and performance evaluation process and techniques, have all contributed to confusion and despair. Even when more developed countries offered help, their prerequisites for financial aid were often tied to the application of planning techniques which were insensitive to important indigenous realities and critical environmental factors. Furthermore, the experience of the World Bank in various countries has shown that often "problems lie neither in technical feasibility nor in costs, but rather, in the social acceptability of the 'solution'" (Churchill, Lycette and others, 1980).

In the International Conference on Development in the non-western world held in Tokyo in 1982, the rector of the United Nations University, Soedjatmoko, emphasized the need for an integrated approach to understand the dynamics of social change. Social Sciences as a whole, because of the character of their methodology, tend to disregard very powerful dynamic forces that are rooted in the cultural substratum of a civilization and that give shape to people's sense of meaning of life. These forces shape and reshape institutions and behavior within broader cultural settings (The United Nations University, 1984). In light of the above, there seems to be a need to reestablish the supremacy of patterns of holistic, strategic thinking at the highest levels.

Strategic thinking addresses fundamental questions such as:

1. What are the characteristics of the problem, its scope and complexity?
2. What are the major threats and opportunities within the environment and the weaknesses and strengths of the operating system?
3. What future can be realistically sought and accordingly what goals should be set?
4. What options are there to achieve the goals?
5. What contingencies must be prepared for?

Answers to such questions evoke a broad scan and reconnaissance of all the forces that might affect future performance. This should give
decision makers enough lead time to attack the key problems—to be proactive, rather than, merely reactive (Stuart, 1984). The housing situation in Egypt and many parts of the world definitely qualifies as a situation warranting a strategic planning effort that involves the long term commitment of scarce resources and the accommodation of interlocking problems and possibly conflicting goals. Thus, strategic planning appears as the most critical phase in the housing process. An inefficient use of resources can be overcome if the basic strategy is correct, but even excellent production and distribution performance is not likely to overcome the wrong strategies.

1.2 PURPOSE AND USEFULNESS

The purpose of conducting this research was to develop a framework for Egyptian urban housing strategies, based on an understanding and consideration of critical factors that affect the success or failure of strategies. The critical factors approach to housing relies heavily on historical analysis of past experiences and a situational assessment that seeks a holistic picture of the present system and its environment. The approach thus identifies factors that are crucial to the choice of strategies that are likely to be most appropriate, feasible and effective.

The Epilogue also illustrates how the conceptual framework can be useful in developing a decision agenda that takes into consideration critical factors. The agenda may be viewed as a possible tool for consensus building in participatory decision making. Thus, it can aid housing policy officials, housing professionals and developers, and citizen groups in structuring a strategic thought process for arriving at effective solutions to the housing problem. It can also be used by housing educators in training programs for housing students and practitioners through various demonstrative applications and exercises.

Furthermore, the research will help interested readers and consultants from other countries, to understand the special complexities of the Egyptian housing situation. In addition, the critical factors approach outlined in Chapter III could be adapted to other developing countries with relatively similar circumstances.
The focus of the research is primarily on critical factors in the development and evaluation of urban housing strategies. This focal point lies in an area of housing that overlaps with public policy analysis and evaluation and strategic planning and management. That is why some of the techniques incorporated in the research may have roots in those fields too. While the research provides an overview of the Egyptian urban housing situation and a comprehensive assessment of the impacting environmental factors, it is not intended as an exhaustive treatment of the subject. The Egyptian urban housing situation is so complex that the intent is to limit the research to a "mixed scanning" treatment, to first identify a broad range of factors and then to analyze selected critical factors.

1.3 THE APPROACH

The conceptual framework of this research is adapted from the work of other researchers in diverse fields, such as housing, landscape architecture and policy analysis, including Turner (1977), McHarg, (1969), Morris and Winter (1978), and the Strategic Planning and Policy Analysis faculty at Virginia Polytechnic Institute and State University (Stuart and Steger, 1980).

The critical factors approach to planning in many ways reflects the principle of "planning for housing through limits" which gives considerable choices for actions and is quite different from prescriptive planning that lays down lines to be followed (Turner, 1977). The critical factors approach also bears similarity to the "McHargian" process of design that is based on analyzing ecological sensitivity. Naturally in urban housing the factors relate more to people rather than land. They are more inclusive since they relate to the physical environment (natural and man-made), the socio-cultural environment, the economic environment and the political governing system. McHarg uses a series of overlays, one for each factor, from which he derives a composite of the critical factors Figure 1.

Management of controllable critical factors also necessitates an understanding of biological, psychological, and social limits in relation
Figure 1: An example of the McHarg process of analyzing ecological sensitivity for design purposes (Barnett, 1981, p. 139).
to behavioral responses. In other words, it necessitates an understanding of the causes and consequences, of the behavioral responses to the exceeding of limits when some element or condition in the environment deviates from its set point, standard or norm.

The critical factors approach relies heavily on a situational assessment that seeks a holistic picture of the system and its environment to identify important factors and their impacts. In this respect, the concepts and techniques developed by the strategic planning faculty of Virginia Polytechnic Institute and State University, were found instrumental in the research.

1.4 RESEARCH DESIGN AND ORGANIZATION

The methodological sequence of this research consists largely of six stages, including both analytical and observational steps. The analytical steps are of such a nature that another researcher, given the same data, could trace the analysis and see clearly how the conclusions were attained. Initial Reconnaissance of the Egyptian housing environment was the first observational step, providing the factual basis for subsequent analysis. This involved an investigative literature review that was clarified and supplemented by interviews with Egyptian housing officials, officials at the World Bank and the United States Agency for International Development who were in active contact with the Egyptian situation, housing and planning professionals, and users of urban housing units. Most of these interviews were conducted by the researcher in July of 1983 with a prepared list of questions and points in need of clarification (Appendix C). This stage was begun with a preliminary conceptual framework, Figure 2, that, in the course of the reconnaissance, became more sharpened and led to the formulation of the research design.

Chapter II provides a summary of the initial reconnaissance of the Egyptian environment and the housing problem. It portrays the environmental profile in terms of the general physical, socio-cultural, economic and political systems and the housing subsystem. It also provides an introduction to the urban housing problem of Egypt.
ANALYTICAL STEPS

(2) Developing the Conceptual Framework

(3) Historical Analysis
    Past impacting factor

CRITICAL FACTORS IDENTIFICATION

Selection → Analysis

(4) Assessment of present situation
    Operative and potential factors

(1) Initial Reconnaissance of the environment and situation

(5) CRITICAL FACTORS IDENTIFICATION

(6) EPILOGUE
- Illustrating the use of critical factors in developing a Decision Agenda
- Recommendations for an Egyptian urban housing strategy
- Implications for other countries

Figure 2 Methodological stages of the research.
In Chapter III the writer presents an integrated concept of housing as a need, a process, and a product. The concept is further developed into a housing model that guides subsequent analysis. A main feature of the model is the consideration of critical impacting factors that influence the progression of housing strategies and which may ultimately determine the success or failure of these strategies. Dynamic relations within the model are examined and methodological procedures are defined for the identification and use of critical factors in the development and evaluation of housing strategies.

Chapter IV is an application of the housing model, described in Chapter III, in retrospect for the analysis of the Egyptian housing experience over the past 30 or more years. This is done with the purpose of identifying factors impacting on the housing situation during those years. The analysis followed through five distinctive eras marked by major events and transformations in the Egyptian environment.

Chapter V is an application of the housing model in the assessment of the present situation. The assessment includes a review of the 1) current environmental context, 2) current housing situation, including the magnitude of the current problem, assessment of need, and estimate of demand and the resource base, 3) the current housing process and its various functions, 4) current issues of concern and major policy directions for the resolution of the problem and 5) a concluding assessment of factors with continued or potential impact on the current situation.

In Chapter VI impacting factors, identified through historical analysis and situational assessment, are examined in light of their relationship to major qualifications of effective strategies and relationship to the different variables in the model. An impacting factor that scored high on the assessment of magnitude of impact scale was considered a critical factor worthy of further analysis and consideration in the decision agenda.

Chapter VII is an Epilogue which includes a summary of findings, a preliminary Decision Agenda for the development of effective housing strategies in Egypt, suggested recommendations, and implications of the research for other countries.
1.5 SOURCES AND REFERENCES

Sources and references for the research included the following:

1. General literature in the fields of housing, public policy analysis, and evaluation of strategic planning;
2. Literature in the specific area of concentration;
3. References and documents related to the Egyptian urban housing situation and the historical evolution of the housing problem in Egypt;
4. Interviews with public officials, consultants, concerned citizens, and simple users of urban housing units.
2.0 CHAPTER II - BACKGROUND ON THE EGYPTIAN ENVIRONMENT AND HOUSING PROBLEM

This chapter provides a summary of the initial reconnaissance of the Egyptian environment and the housing problem. It portrays the environmental profile in terms of the general physical, socio-cultural, economic, and political systems and the housing subsystem. It also provides an introduction to the urban housing problem of Egypt.

2.1 THE PHYSICAL ENVIRONMENT (NATURAL AND MAN MADE)

Egypt, a river land surrounded by vast stretches of desert, occupies the northeast corner of Africa and the Sinai Peninsula in southwestern Asia. Egypt overlooks both the Mediterranean Sea on the north and the Red Sea on the east. The two seas are joined by the Suez Canal. In Egypt, five major physiographic regions can be identified. These regions are:

1. The Nile Region which is comprised of the Nile Valley and Delta. The value of the Nile in relation to the fertility and productivity of adjacent land was largely attributable to silt deposits laid by flood waters. However, most sediment, but not all, is now obstructed by the Aswan High Dam and retained in Lake Nasser, (Nyrop, 1983). The dam was built to regulate water flow, prevent severe floods and generate electricity. The region has the highest population concentration and the major urban settlements including Cairo, the capital of Egypt. With increasing demand on urban land, the fertile productive base is rapidly eroding.

2. The Mediterranean coastal region which has a few major urban settlements, mainly, Alexandria, Port Said, Rosetta, Damietta, and Mersa Matrouh. Most of the area west of Alexandria is considered frontier region warranting further development.

3. The Eastern Highlands and Red Sea Region which has very few settlements along the Red Sea coast. The major urban settlement in the area is the port and city of Suez. Minor settlements exist along the Red
Sea. The Eastern Desert rises abruptly from the Nile. The upward-sloping plateau of sand gives way within 80 to 130 kilometers to arid, defoliated, rocky hills running north and south between the Sudan border and the delta, and reaching elevations of over 1,900 meters. The elevated region has a natural drainage pattern that, because of insufficient rainfall, rarely functions; a complex of irregular, sharply cut wadis extends towards the Nile. The region's most prominent feature is the easterly chain of rugged mountains, the Red Sea Hills, extending from the Nile Valley eastward to the Gulf of Suez and the Red Sea, (Nyrop, 1983).

4. The Sinai Peninsula has a few urban settlements, mainly Al Kantara and Al Arish. The region has the highest mountain in Egypt, Mount Catherine which reaches 2,637 meters. The southern side of the peninsula has a sharp escarpment that subsides after a narrow coastal shelf into the Red Sea and the Gulf of Aqaba. A sloping limestone plateau tilts downwards from this area to the north toward the Mediterranean. It begins at an elevation of about 1,000 meters, occupies about two thirds of the peninsula, and ends in a flat, sandy coastal plain. The peninsula is now administerally divided into two governorates: North Sinai with its capital in Alarish and South Sinai whose capital is Altur, (Nyrop, 1983). The area is also considered by the government as a frontier open for development.

5. The western desert and oasis region which has a few rural settlements in the oasis. This region accounts for about two thirds of the land area of Egypt. It spans the area south of the Mediterranean to the Sudanese border. It is generally a massive plain or low plateau of basement rocks covered by slight layers of horizontally bedded sediments. Scarps (ridges) and deep depressions (basins) are found intermittently. There are seven important depressions in the region and are considered oases except for the largest, Quattara, which contains only salt water. The Quattara Depression is approximately 18,160 square kilometers (about the size of New Jersey) and drops at times to 132 meters below sea level. Uninhabited, it contains badlands, salt marshes and lakes. The remaining six depressions are characterized by limited agriculture, some natural resources and
permanent habitation. They have water provided either by the Nile, such as in the case of Fayyoum, or local ground water sources, (Nyrop, 1983). Reclamation efforts continue in the area and several development projects are being considered by the government.

The Mediterranean coastal areas and the Nile Delta are characterized by hot dry summers and rainy mild winters. In winter the desert regions have very little rain, warm days and cold nights while in the summer the climate is hot during the day and mild during the night (Nuttonson, 1961). The climate of Egypt has very much influenced the native architecture and allowed the opportunity of building flat roof tops, balconies and courtyards which are considered major social and recreational spaces in the Egyptian life, especially in the cities and urban areas (Said-Farahat, 1976). Although Egypt covers an area of approximately one million square kilometers (386,100 square miles) the greatest part of its population is crowded into the narrow irrigated strip along the Nile Valley and the Delta Region which comprise only 5% of the land (Nuttonson, 1961). Major urban settlements, therefore, are concentrated on the Nile Valley and Delta, the northern Mediterranean coastal areas and the Suez Canal. The major areas of highest concentration are: greater Cairo, where 25.1% of the Egyptian population crowd, the Delta governorates absorbing 23.4% of the population and Alexandria absorbing 13.1% of the population Figure 3 (Ministry of Housing and Reconstruction, 1979).

In 1897 less than 15 percent of the Egyptian population resided in the 17 cities and towns with at least 20,000 inhabitants. In 1960 more than 36 percent of the population was to be found in the 86 urbanized communities of Egypt. In 1897 Cairo contained somewhat less than 8 percent of the country's population. In 1960, it reached over 13 percent and by 1975 it escalated to over 21 percent of the Egyptian population (Abu Lughad, 1971; Ministry of Housing and Reconstruction, 1975). Such a spectacular urban growth has encroached upon the agricultural fertile land of the Nile valley and many of the productive agricultural land was subdivided and turned to urban residential, commercial, and industrial uses. Old cities that were not prepared to absorb the influx of migrant population and the natural increase in its population, suffered tremen-
(A) The Three Major Population Concentrations

(B) Percentage of Rural and Urban Population

(C) Population Distribution (Areas of Concentration)

Figure 1: Population Distribution and Major Concentration Areas in Egypt According to the 1976 Census, as Reported in the
dously from high density, high land coverage and over-crowding. The unbearable increase in the intensity of use and the loading of the infrastructure beyond its designated capacity led to tragic collapse in many areas, and a multitude of problems besides congestion in urban facilities, services and traffic routes.

With over-use and low or often no maintenance, dilapidation and deterioration of the built environment was inevitable, and a great percentage of the built environment is awaiting redevelopment. It may be ironic that the so-called slums of today were once a frontier of development and progress which is witnessed by historic landmarks entrenched within these areas.

2.2 THE SOCIO-CULTURAL ENVIRONMENT

Egypt is a country of unique heritage and diverse historic riches. Its ancient land, the gift of the Nile, has been recognized as the cradle of civilization and in the course of history played a leading role in the initiation, development and transmission of cultural life. With Egypt's strategic location, it became a crossroad of ancient civilizations, cultures and human interaction which is reflected in its Pharonic, Greek, Roman, Coptic and Islamic heritage. However, the receptivity of the Egyptian people was constantly tinged with a capacity for reabsorption and genius for naturalization (Wahba, 1972); and the Egyptian people for a long time have been considered basically one nation and one culture. This does not exclude some slight variations and regional characteristics that contribute to the richness of the embracing national culture. In this respect we may classify these variations as follows: urban subculture, agricultural subculture, desert and nomadic subculture and coastal subculture. Variations are in terms of social norms and traditions and work and leisure patterns. Moral and religious values are cherished by the general population.

Within the Egyptian context certain values have a direct bearing on housing as a process and housing as a product. These values relate mainly to freedom, privacy, purity, and neighborly cohesion. For further clarification see Appendix D. In Egypt there is no form of racial or reli-
gious discrimination or social stratification. Definitely there are variations in income levels and educational backgrounds but this does not obstruct social fluidity and social mobility. It follows that most urban residential districts have a mixture of income groups. A few neighborhoods have a predominantly lower percentage of higher income population. In general, the population is expanding at approximately 2.9 percent annually while the urban population is expanding at an astounding 4.2 percent annually. By the mid-1970s cities of more than 100,000 accounted for one third of the total population and three fourths of all urban dwellers. At the same time the proportion of Egyptians living in smaller towns (10,000 to 19,000 in size), dropped from nearly 10 percent of the population in 1947 to a scant 4 percent in 1976 (Nyrop, 1983). While the average family size for Egypt is 5.2, the household size has increased with more doubling up of nuclear and extended families or related persons. Variations in family size relate more to educational factors rather than socioeconomic factors. Table 1 shows the estimated family size percentages in the population. Figure 4 shows the age composition of the general population.

Families who have members involved in manual work have increased their incomes and built for themselves. The problem lies with families with fixed incomes, such as the families of government employees (Serag El Din, M., July 1983).

Table 1. Family Size and Estimated Percentage in the Population of Egypt

<table>
<thead>
<tr>
<th>Family Size</th>
<th>Percentage in the Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 or less</td>
<td>25%</td>
</tr>
<tr>
<td>5 - 8</td>
<td>45%</td>
</tr>
<tr>
<td>8</td>
<td>30%</td>
</tr>
</tbody>
</table>

(A. Barrada, 1970)

Figure 4 General Population Age Composition
2.3 THE ECONOMIC SITUATION

Egypt is now considered a developing nation. For long, the Egyptian economy was dependent on agricultural production and it was not until the late thirties that national industry began to develop. The average individual income is very low compared to western developed nations. Figure 5 shows a classification of the urban households according to their income level and occupation of the head of the household and the percentages of these households in the national urban population.

Income distribution remained relatively constant from the mid-1950s through the mid-1970s. After the mid-1970s the easing of import-export restrictions in combination with efforts to attract foreign capital and revive the private sector generated new affluence for some. In constant prices, per capita income grew by about 50 percent from the early 1950s through the mid-1970s. Wages rose substantially in the late 1970s, but many of the gains were lost to inflation. Skilled labor by far had higher wage increases. For example, in the early 1980s a free-lance tile setter could earn up to 1.50 per day yielding a weekly income nearly equal to a government minister’s salary. In the mid-1970s estimates put 27 percent of urban and 35 percent of rural households below the poverty level. At the top of the scale some 2,000 people enjoy an annual income of L.E. 35,000 while at the bottom of the scale over 4 million earn less than L.E. 100 a year, Figure 5.

An important, if not critical, factor in the economic situation is the economic constraint due to limitations in the resources of government and low savings level. This is further clarified by the following facts.

1. A growing deficit in the national budget and the balance of payments. This deficit which fluctuated between 200 and 300 million, L.E. in the late 1960s, rose to 500 and 600 million L.E. in the early 1970s, and then jumped to 1000 and 200 million L.E. in the mid 70s (MOHR et al., 1976).
2. Slow growth of Gross Domestic Product at a rate of 4%.
3. Large foreign debt and consequent high debt service charges.
High income households
[Business owners & professionals]

Middle income households
[commercial, professional, government workers, skilled workers, factory workers, teachers]

Low income households
[unskilled craftsmen - shopkeepers, laborers, vendors, parttime workers, unemployed]

Figure 5 National income distribution in Egypt
(based on MOHR, et al., 1976; Nyrop, 1983)
5. Rising cost of imports and stable or declining prices of exports (Mottle, et al., 1976).

In order to achieve a balance within the economic structure, the government found that it was inevitable that national consumption be curbed, and production increased, with emphasis placed on essential goods. To achieve this, the latest five-year plan has been formulated to increase the production rate in the agricultural sector by 3.7% and in the industrial sector by 9.8%. It was also found necessary that the deficit in the balance of payments be lowered through a persistent effort to increase exports by a rate of 8.3% while lowering the rate of imports by 4% (Arab Republic of Egypt, Ministry of Information, 1983). The plan has specific provisions for the production and importation of building materials.

In order to fully comprehend the present economic situation, it may be essential to review the changes in the economic system throughout the past three decades. Prior to 1952 the economy of Egypt was mostly capitalistic and the feudal system predominated the economy and even influenced political activity. With the Egyptian Revolution in 1952 the feudal system was abolished and gradual transformation towards a socialistic economy occurred. During this transformation, the ultimate and most critical planning decisions became mostly in the powers of the central government which embarked on very ambitious five year development plans, economic expansion and industrialization projects such as the High Dam at Aswan, the Tahreer Province land reclamation project near Alexandria and the steel industry in Helwan. In the housing sector, rent reduction and rent assessment by government were introduced. With the 1967 Arab-Israeli War and the closing of the Suez Canal, the economy suffered a severe blow and Egypt had to rely on loans and aid from the Arab and international communities and organizations. More stringent controls were imposed upon the economy. A great portion of the national economy was directed towards rebuilding the army and for defense purposes. These controls continued until the 1973 October war.

With the gradual return of the Egyptian refugees to reconstructed Canal cities, the economy of the country began to shift to a different
direction. Many of the economic restraints were removed, private enterprise rejuvenated and allowed to venture in the import and export channels and foreign investment welcomed.

The Law of Foreign Investment came into being in 1974. To initiate an "open-door" economic policy, aiming at strengthening international ties, and encouraging the advent of capital which would serve the national development plans and enhance constructive cooperation with other nations. This law was amended in 1977 to address the needs of foreign investors.

At present, an interesting economic phenomenon that warrants attention is the movement towards the restoration of an Islamic economic system in general and Islamic banking in specific. The basic foundation and distinguishing characteristic of an Islamic Bank is that it does not provide finance on the basis of interest, but under a variety of profit-sharing arrangements.

2.4 THE POLITICAL GOVERNING SYSTEM

2.4.1 The General System

Egypt is basically an Islamic country where Islamic jurisprudence (Sharia) is officially the main source of legislation, as stated in the Egyptian constitution. It is a non-secular state where no separation exists between religion and state and furthermore, there is a strong tie between the political governing system with its three branches or subsystems—the legislative, the executive, and the judicial branch—and the religious reference system, Figures 6 and 7. The basic concept of the political/governing system did not change, although variations in

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For example, within the legislative branch there is a committee for religious affairs that formulates and passes certain legislations after referring it to the council of religious scholars, "Al-mooffi" and "Shiekh El-Azhar" for revisions and approval based on "Igma Alolamaa" (consensus of the religious scholars). Another example is that religious education, for both Moslems and Christians, is an integral part of the educational system whose policy and curriculums are developed and formulated within the executive branch, specifically in the ministry of education and higher studies.
Figure 6: The general political/governing system.
**Figure 7** The political/governing system (detailed) (based on Arab Republic of Egypt Ministry of Information, 1983).
some of its aspects, did take place over the past thirty years, i.e., with the birth of the 1952 Egyptian Revolution.

Under the Permanent Constitution of 1971, Egypt adopted the name Arab Republic of Egypt. The Constitution defines the structure and functions of the state, the basic components of society, public liberties, rights and obligations, the supremacy of the law and the system of government explained as follows.

The Judicial Authority

The Constitution guarantees the independence of the Judiciary and legal decisions which are the mandate of the judges as there is no jury system. A Supreme Judicial Council supervises the affairs of the judicial organizations, the highest judicial authority, with the power to determine the constitutionality of laws and regulations, is the Supreme Constitutional Court or the Court of Cassation. Although "Sharia" is the main source of legislation, the legal system has been influenced by the Napoleonic Codes which were introduced during the French expedition to Egypt.

The Executive Authority

The President, nominated for a term of 6 years and eligible for unlimited renomination, is Chief of the State, the Head of Government and Supreme Commander of the Armed Forces. It is the President's duty to appoint one or more Vice Presidents, the Prime Minister, Deputy Prime Ministers and state ministers as well as important civil, military and diplomatic appointments.

The Legislative Authority

Over the last decade, Egypt has made steady moves towards becoming a multi-party democracy. The Legislative authority consists of the Consultative Assembly and the People's Assembly. A minimum of 420 members of the People's Assembly, at least 50% of whom must be either workers or farmers, are elected for a five year term by direct secret ballot on the basis of universal adult suffrage. Thirty additional seats are reserved for female representatives. The President may appoint, in addition, up
to ten members. While the President determines the main policy of the State, the Cabinet supervises its implementing and ministerial responsibility to the Legislature is constitutionally established. The five main political parties are the ruling national Democratic Party, the New Delegation (Wafed) Party, the Socialist Workers Party, the Liberal Socialist Party and the Unionist Progressive Party.

2.4.2 The Housing Subsystem

The existing administrative framework for housing and land development in Egypt, operates on two main levels: (1) the central level and (2) the local level, as explained by the following:

The Central Level

Before 1958 housing was a function of the Ministry of Town and Village Affairs. In 1958 the Ministry of Housing and Public Utilities was established. After the 1973 war and the need for reconstruction, more responsibilities were added to the ministry and it became the Ministry of Housing and Reconstruction (MOHR). The ministry has latter been renamed as The Ministry of Housing, Reconstruction and Land reclamation, (Arab Republic of Egypt. Ministry of Information, 1983).

Until July 1984, The Ministry of Housing, Reconstruction and Land Reclamation, grouped under the same organizational structure functions formerly carried out by the Ministry of Housing and Public Utilities as well as other public authorities. To these are added the planning and implementation responsibilities for reconstruction in the Canal Zone and other regional development projects in remote areas, transcending the geographic boundaries of individual governorates (MOHR et al., 1976).

The functions of Housing were carried out by seven specialized administrations headed by undersecretaries. This is in addition to five general organizations dealing with specific fields of activity, three of which are of special interest to housing. The executive arm of the Ministry was 65 public sector firms involved in land development; housing construction; general contracting; and manufacture, distribution of building materials and equipment that fall under the jurisdiction of the
Ministry. These firms were grouped under two supervisory councils (MOHR et al., 1976), Figure 8.

In July of 1984 the major functions of the ministry were again separated and Housing became an independent ministry. Reconstruction and reclamation became a separate ministry.

The Local Level

The current system of local administration was first introduced in 1960 in an effort to decentralize government. It was meant to emphasize the role of the "local council" as a democratic means of self-government by giving them legal personality and financial autonomy. Their funds are derived from the transfer of certain taxes to the local level as well as budget allocations for the services they supervise (Serageldin, 1976). These local councils are at the level of governorates and the level of towns and villages. Figure 9 sums up the current administrative framework at the local level.

1. The level of the Governorate

There are two local councils—one elected and one appointed. The executive arm for implementation of national plans and programs at the regional level is the governorate executive council headed by the Governor and comprised of regional representation of the various central ministries. This is linked to MOHR through the attached Housing and Reconstruction Administrations which are responsible to direct and supervise the different housing programs. It is important to note that local authorities use the services of public or private contractors and can choose the type of housing they wish to build in accordance with national allocation policies (MOHR et al, 1976).

2. Towns, villages and cities

Of particular interest to this research are the city councils which are composed of elected and appointed members, the latter mainly ex-officio. Their responsibilities in the housing field are enormous, since they are entrusted with the implementation of the various laws governing housing and land development, including subdivision regulations; control over the building process in terms of allocation of
Figure 8 Ministry of Housing and Reconstruction Chart, 1976
The President of Egypt

Prime Minister

Governor

Ministry of Local Government and Environmental Affairs

Ministry of Housing & Reconstruction (MOHR)

Elected Local Council

(Elected Citizens)

The Governorate Executive Local Council

(Housing & Reconstruction Administration (by app.)

Village/Town/City Councils (Elected and Appointed Members)

Technical Administration (by appointment)

Figure 9 Present Structure of the Local Government and its Relationship to the Executive Branch of the Government, Mainly MOHR and its Local Branches
housing types and building materials; administration of building permits; supervision of building activities including new construction, alterations, additions, conversions, heightening, repair and demolition of structures; and administration of rent control legislation. However, their legal powers are not currently matched with needed technical staff and budget appropriations or the adequate means of enforcement (MOHR et al., 1976). The link between MOHR activities and such a level is the Technical Administration attached to the city council.

2.5 THE HOUSING PROBLEM

Egypt, as many other developing countries, has been suffering an acute urban housing problem. The problem is of great magnitude and of a complex nature.

Urban areas in Egypt have alarmingly high rates of population density, reaching 26,000 persons/km² which is twice the density of New York City. Urban housing tends to be overcrowded, registering 1.8 persons per room. In some highly overcrowded districts, a family of eight persons can crowd in a one room dwelling unit. Only 69.5% of the urban households have access to electricity, 29% have access to a sewage disposal system, and 49.05% have a pure water supply available inside the dwelling unit. The problem has an intense impact on lower income families that constitute over 50% of the urban population (Hanna, 1978; MOHR, 1979).

In Cairo alone, the population of over 9 million inhabitants constitutes 25.1% of the national urban population. Of these inhabitants, it is estimated that 1/2 to 1 million live in substandard roof top shacks or tomb cities and at least 400,000 housing units have been declared by the government as uninhabitable. Figure 10 and Table 2 show existing disparities in the housing arrangements and conditions in the present situation. Estimates of the percentages of these conditions are based on the 1976 census results. Less than 49% of urban households have separate living and sleeping quarters, a private sanitary core and private access. About 6.65% have main common access, core and living space and private sleeping quarters. About 21.4% use a separate public sanitary
Figure 10.  Environmental pollution and deterioration in Cairo
<table>
<thead>
<tr>
<th>Key to illustration</th>
<th>Description of the case</th>
<th>Symbolic Representation</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="nuclear family" /></td>
<td>Each family has separate living and sleeping quarters, a private sanitary core and private access. Common needed services accessible to families. These present less than 49% of urban households in Egypt.</td>
<td><img src="image" alt="symbolic presentation" /></td>
</tr>
<tr>
<td><img src="image" alt="access" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="sanitary core" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="sleeping quarters" /></td>
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<td></td>
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<tr>
<td><img src="image" alt="living space" /></td>
<td></td>
<td></td>
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<tr>
<td><img src="image" alt="common needed services" /></td>
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</tr>
</tbody>
</table>

#Based on the 1976 preliminary census reports.
Table 2 Continued

**HOUSING ARRANGEMENTS AND CONDITIONS**

<table>
<thead>
<tr>
<th>Key to illustration</th>
<th>Description of the case</th>
<th>Symbolic Representation</th>
</tr>
</thead>
<tbody>
<tr>
<td>🏡 nuclear family</td>
<td>Unrelated families with main common access, core and living space and a number of private sleeping quarters. These present about 6.65% of urban households in Egypt.</td>
<td></td>
</tr>
</tbody>
</table>

Diagram: [Diagram showing housing arrangements with symbols for nuclear family, access, sanitary core, sleeping quarters, living space]
Table 2 Continued

<table>
<thead>
<tr>
<th>Key to illustration</th>
<th>Description of the case</th>
<th>Symbolic Representation</th>
</tr>
</thead>
<tbody>
<tr>
<td>nuclear family</td>
<td>Several groups of possible unrelated families using a separate public sanitary core outside the common building. These present about 21.4% of urban households in Egypt.</td>
<td><img src="image" alt="Symbolic Representation" /></td>
</tr>
</tbody>
</table>
### Table 2 Continued

#### HOUSING ARRANGEMENTS AND CONDITIONS

<table>
<thead>
<tr>
<th>Description of the case</th>
<th>Symbolic Representation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Several groups of possible unrelated families having common cores. They represent about 22.9% of urban households in Egypt.</td>
<td><img src="image" alt="Symbolic Representation" /></td>
</tr>
</tbody>
</table>

**Key to Illustration**
- **@** nuclear family
- **~** access
- **-** sanitary core
- **0** sleeping quarters
- **O** living space

**Living Space**
- **@** nuclear family
- **~** access
- **-** sanitary core
- **0** sleeping quarters
- **O** living space
core outside the common building, and about 22.9% have neither common nor public sanitary core.

As may be seen in the subsequent chapters, the housing problem in Egypt is a dual problem with both substantive and process elements. Substantive elements relate housing resources, need and product and process elements relate certain practices in the housing process which might well be the root causes of the problem as clarified by the Situational Assessment, Chapter V.

It can be concluded from this chapter that a multiplicity of forces and factors have shaped and impacted on the urban housing situation in Egypt. The natural physiography of the country has led the majority of the population to settle on the Nile Valley. Socioeconomic factors induced intensified rural urban migration causing swollen populations in urban areas, particularly in Cairo and Alexandria. The demand on the housing system was increased, overcrowding was inevitable. Overcrowding and vertical expansion overstrained public utilities leading to severe congestion, rapid deterioration and erosion of the infrastructure. Economic and political forces continue to have a tremendous impact on the housing process and situation as may be seen in the next chapter.


3.0 CHAPTER III - THE CONCEPTUAL FRAMEWORK OF THE RESEARCH: CRITICAL FACTORS APPROACH TO HOUSING

As mentioned in Chapter I, housing in many developing countries, including Egypt, reflects dissimilar concepts, incompatible criteria, obscure aims, and conflicting courses of action (Ibrahim, 1984). This contributes, with other factors, to the aggravation of the housing problem and delay of its solution. If the beginning of the solution to any problem is to organize a method for dealing with it, the first step in organizing that method is the development of a clear concept of the subject matter. In this chapter, the writer presents an integrated concept of housing which can serve as a basis for consensus among housing related officials and professionals. Furthermore, the concept is developed into a housing model that can guide research in the field. A prime feature in the model is the consideration of critical factors that affect the success or failure of housing strategies. The model constitutes the conceptual framework used in this research to guide subsequent analysis and identification of critical factors in the Egyptian housing situation. The general outline of the chapter is as follows:

1. The integrated concept of housing from which the model was developed:
2. A housing system model applicable to Egypt:
3. Methodological procedures for the identification and use of critical factors, as guided by the model.

3.1 THE INTEGRATED CONCEPT OF HOUSING

The integrated concept of housing weaves together three major strands: housing as a need, as a process and as a product. Accordingly housing is conceived as a subsystem of society that provides an environment for the fulfillment of a hierarchy of human needs. Housing as a need is an input to the system, housing as a process includes the throughputs for the conversion of inputs to outputs and housing as a product is an output from the system. The process has various phases and involves
various actors and dynamic relationships. Strategic planning, as the initial and most critical phase in the housing process, involves the identification of goals and broad policies as well as priorities associated with the goals. The outcome of that phase are the strategies which provide guides to present and future decisions and directions for the management of the controllable critical factors in the housing situation. Thus, an important concept in strategic planning is awareness of and an alertness to environmental forces and factors that may affect the progression of the strategic plans. Effective strategies not only enable planners to provide responses to critical factors in the current situation, but also anticipate and ward off potential problems. Critical factors are viewed as impacting forces that are most powerful in determining the success or failure of public policy goals and strategies. Strategies also include policies for orchestrating the various actors and functions within the process to maximize public benefit and achieve desired goals. The following is a description of the three major strands of the integrated concept of housing as a need, process and product.

3.1.1 Housing as a Basic Human Need

Housing provides shelter and protection and the setting for many of the basic biological and social processes to sustain life. It also symbolizes the status of the family to both the wider community and to the family itself. Often, the motivation that prompts housing is not simply the desire for shelter but the right kind of shelter (Morris and Winter, 1978).

The type and condition of housing achieved for each individual or family, fulfills to some degree a hierarchy of human need. In the general sociological literature reference has been made to three types of human needs: (1) needs that humans share with animals, (2) needs that are strictly human, but are not culturally induced, and (3) needs that are culturally induced by socialization (Morris and Winter, 1978). These three classes of need can be compared to the hierarchy of interest or "Masalih" in the Islamic literature which classifies them into (1) "Al Darorat" or absolute necessities, (2) "Al Ihtiyagat" or needs, and (3) "Al
Tahsinat" or improvements (Llewellyn, 1980). For the purpose of this research the hierarchy of human needs will be described as follows:

1. **Survival needs** which are absolute necessities that pertain to health and safety. These are needs shared by humans and animals.
2. **Welfare needs** which transcend biological survival to general social and psychological welfare. For example, the need for privacy, for self respect, for a sense of community and belonging, for education, for cultural continuity and a sense of freedom, choice and social equity.
3. **Fulfillment needs** which relate more to personal values and variant social, intellectual and psychological needs, such as the need for self-expression and aesthetics.

Housing conditions either result in the satisfaction of human needs or the inducement of stress on individuals and families. Stress may be biological, psychological or social and may eventually lead to pathology. It has been contended that the first class of needs, survival, must be met by a society to ensure the survival of its population. However, a specific society with a given level of social organization, technology, geographic environment, and availability of natural resources could achieve a rather broad range of housing conditions depending upon the place of housing in its overall hierarchy of values which is acquired through social learning and which serves as a guide for the selection from among perceived alternatives of orientation (Morris and Winter, 1978, Steiss and Daneke, 1980). Thus, housing may be classified according to the degree to which hierarchical human needs are satisfied. Such a classification may yield the following definitions of housing with reference to the satisfaction of human need.

**Shelter**

Housing that provides protection from the elements and enemies, i.e., provides security essential for survival.
**Decent housing** Housing that provides shelter and ensures privacy as a basic welfare and fulfillment need and value, i.e., housing compatible with norms and upheld values of the community of users.

**Adequate housing** Housing that is secure, decent and adequately satisfies the welfare needs of its users, i.e., housing that is comfortable, convenient and facilitates the fulfillment of the aspiration of its users.

A certain community may be facing a multitude of problems and sensing a variety of needs that must be met. Resources to solve these problems and meet these needs may be limited. Rationally, efforts and resources will have to be geared toward the most urgent of these problems and needs. The values of that society may very well indicate the relative importance of varying needs and help in the determination of priorities for public action. In this respect, it is important to recognize and distinguish between two types of values:

1. Absolute and intrinsic values which are commonly and continuously shared independent of outside conditions and indicating the desirable and self-sufficient quality of an experience.

2. Relative and extrinsic values which are dependent on the setting and represent the meaning or worth desired from the relation of one thing to another. (Deacon & Firebaugh, 1975).

Type 1 values may be viewed as core values that persist and continue in the inner conscience of man and which may be compared to the basic biological structure of man, while type 2 values may be viewed as peripheral values that are more variant and which can be compared to the color, physiognomy and personality of man. Individual or social identity may, therefore, be viewed as a composite of both types of values.

For example, the value of 'privacy' when taken in general is an absolute intrinsic value, or core value but when privacy is more specif-
ically defined and related to or translated to normative criteria, relative, extrinsic or peripheral values come into play. Another example is the value of 'freedom'. A community valuing freedom of choice would desire housing strategies that do not inhibit that freedom or force people, members of the community, to accept excessive regulation or compulsory assignment to particular housing units or housing types.

The house is viewed, not just as a structure, but also as an institution created for a complex set of purposes, and as a cultural phenomenon whose form and organization are greatly influenced by the cultural milieu to which it belongs (Rapoport, 1969).

Very early in recorded time the house became more than shelter for primitive man, and almost from the beginning 'Function' was much more than a physical or utilitarian concept...If provision of shelter is the passive function of the house, then its positive purpose is the creation of an environment best suited to the way of life of people - in other words, a social unit of space (Rapoport, 1969, p. 46).

In light of the above, housing has the following attributes which together differentiate it from any other unit of space.

**Shelter**
Housing provides protection from the elements and enemies. Therefore, it is an absolute necessity for survival and in that respect it is a human right.

**Private Domain and Shield**
Housing is a domain for personal authority, maximum privacy satisfying a basic need to shield activity, and intimate relations from public intrusion. It is a place for personal and family retreat.

**Space and environment**
Housing facilitates personal and family functioning and development. It is a place to rest, sleep, eat, and satisfy biological needs, a place for maintenance of self and family, a place to keep personal belongings. It is also a place for socialization, for entertainment and recreation, a place to work, study, and develop intellectually, physically, morally, and emotionally.
An extension of self and family  Housing is an opportunity for self-expression and self realization and a symbolic representation of the family.

A locus address and territory  Housing is a place of residence and a defined spatial unit of reference and point of contact.

A location within a larger environment  Housing does not exist in a vacuum or stand alone. Housing is a location with relationship to human activities outside the private domain.

"Housing stress" results when housing conditions fail to satisfy basic human needs that exceed tolerable limits. Certain techniques have been developed to identify housing stress in relation to specific indicators. For example, Wakely, Schmetzer and Mumtaz (1976), have used the following indicators to develop housing stress maps based on composite scores for these indicators.

• The age and condition of buildings;
• Availability of water, sewage and drainage;
• Residential densities and occupancy rates;
• Accessibility to daily shopping, schools, medical facilities and public transport;
• Accessibility to public open space and religious and recreational facilities.

In Egypt, the indicators most commonly used to assess housing conditions and supposedly satisfaction of need are: condition of buildings, the availability of water, sewage and electricity as well as residential densities and occupancy rates as measures of crowding. Measures of crowding (a deficit of space) establish a relationship between a measure of space and occupants of the space; e.g., the number of square meters per person, persons per room, or persons per sleeping room. However, such measures do not take into account important factors such as age, sex and
relationships among household members or family roles and cultural norms. In Egypt, the ministry of housing's suggestions or guides for space standards have changed over time. Until the mid-seventies, the ministry guides for average housing were as indicated in Table 3.

<table>
<thead>
<tr>
<th>Type of House</th>
<th>Number of Rooms Required in the dwelling unit</th>
<th>Occupancy Rate</th>
<th>Maximum Family Size</th>
<th>Area/Person (m²)</th>
<th>Built area of dwelling unit (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two bedrooms and living</td>
<td>3.5</td>
<td>1.5</td>
<td>5</td>
<td>15-20</td>
<td>75-100</td>
</tr>
<tr>
<td>Three bedrooms and living</td>
<td>5</td>
<td>1.5</td>
<td>7.5</td>
<td>15-20</td>
<td>112-150</td>
</tr>
<tr>
<td>Four bedrooms and living</td>
<td>7</td>
<td>1.5</td>
<td>10.5</td>
<td>15-20</td>
<td>157-201</td>
</tr>
</tbody>
</table>

(Yousry, Abdelkader and Barrada, 1970, p. 70)

A major indicator of the existence of a housing problem is the gap between housing norms and housing conditions. Narrowing that gap becomes a primary objective of public policy. Alternative means for narrowing the gap may be: lowering norms, improving conditions, or both (Morris and Winter, 1978).

With the acceleration of the housing crisis and the increased demand on urban land, the Egyptian government was advised by some consultants to lower those space standards and limit the size of housing units to be built, according to designated income group categories.

3.1.2 Housing as a Process

Evolution and Scope

"Housing" as a process evolved from being simple, with limited actors involved and limited organization required (a personal, family or clan responsibility at a local level) to being sophisticated and complex with
a multiplicity of actors involved, complex extensive organization, and a social responsibility at local, national and even international levels.

The primary beneficiary of housing is the user or the consumer be it an individual or a family. For a long time, that user was the principal actor in the housing process. With growing complexity, specialization, industrialization, and urbanization, other actors gained importance and control in the process. The interaction of these actors and the vitality of the roles they play in the process may either diminish or increase the user's opportunity to acquire suitable housing.

Housing has become dependent not only on the decisions and resources of individuals and families but on the political, economic, and social systems; cultural norms; technology; private enterprise, and exchange of expertise and in some cases international relations and events. In the broader social context housing may be viewed as a social responsibility or obligation, an economic tool, or economic indicator and often as a social problem. Housing becomes a social problem when there are objective conditions that are subjectively defined as inadequate or undesirable. Thus, housing deficits become so widespread that they become a matter of collective concern warranting public policy responses.

As the environment for the housing process has become increasingly complex, it becomes necessary to improve the process itself in order to cope with such complexities. Thus, strategic planning emerges as a primary phase in the process.

Phases in the Housing Process

1. **Strategic planning**, the initial, and in some ways the most critical phase in the housing process, involves the identification of goals and broad policies as well as priorities associated with the goals to provide guidelines for present and future decisions. Therefore it necessitates the collaboration of the principal actors in the housing process which include public sector officials, professionals, private sector developers, community organizations, and representatives of the wide base of users.
An important concept in strategic planning is awareness of and alertness to environmental forces and factors that may affect the progression of the strategic plans. Effective strategies, not only provide responses to critical factors in the current situation, but also anticipate and ward off potential problems, which are the basis of advance planning as opposed to "fire fighting."

At this phase in the process goals are viewed as an articulation of values, formulated in light of identified issues and problems, toward the attainment of which policies and decisions are directed. Critical factors are viewed as impacting forces that are most powerful in determining the success or failure of public policy goals and strategies. Housing strategies are conceived more sharply as directions for the management of the controllable critical factors in the housing situation, that affect the process of meeting housing needs by converting resources into products and services. It also involves policies for orchestrating the various actors and functions within the process to maximize public benefit and achieve desired goals.

In this respect, seems important to reemphasize the difference between strategic and conventional planning. Strategic planning is that phase of the housing process, in which desirable, feasible goals and broad policies are developed to manage controllable critical factors and guide subsequent decisions for the conversion of available resources into products that meet the housing needs and demands of the population. Conventional planning, on the other hand, is usually concerned with the determination of the most effective or efficient means of achieving pre-set goals, in the subsequent phases of the housing process.

Strategic planning in the public and community sectors is much more complex than in the military or corporate/private sectors. The focusing on a narrow goal set is facilitated in the military sector by the concept of 'the enemy' and the 'win or die' psychology, and in the corporate or business sector by the concept of 'profit' and the concern for 'competition'. In contrast, the public and community sectors are concerned with diverse and multidimensional interests and
services and the multi-goal expectations of the constituents. The location of 'housing' on a matrix representing two major dimensions of a problem situation, may promote an appreciation of the level of comprehensiveness and inclusiveness involved, Figure 11. This explains why planners often find themselves confronted with a wide group of actors, each with its own goals, power base, and internal rationality. Under these pressures, planners are expected not only to be aware of the social, economic and ecological impacts of their proposals, but must be sensitive to how these proposals will be viewed by affected groups. (Stuart, 1982).

This leads to the recognition of the importance of participatory decision making and the new role of the planner or national policymaker as a multi-disciplinary synthesizer and comprehensive social planner with the skills for conflict mediation and consensus building. Implications of such a role include: (1) involvement of affected groups in the formulation of recommendations; (2) competence in communication and involvement skills; (3) sensitivity to group goals, needs, and political perspectives; (4) forums for the interplay of actors; (5) responsiveness to current issues, including policy analysis roles and greater flexibility in long range plans because of the necessity of tradeoff against other interrelated public or community goals. (Stuart, 1982).

2. Legislation is the design and articulation of the legal framework for implementing the strategies and regulating the actions and interactions of the different actors in the process, i.e., designating limits for action. For any strategy to succeed, some control mechanisms need to be designed in order to effectively regulate the actions and interactions of the different actors within specified limits. However it is very important to distinguish between restrictive, extensive regulation that inhibits freedom of choice and suppresses creativity and innovation, and reasonable regulation that guarantees equity, fairness and freedom of choice.

A distinction must be made between rules that act as limits to action and rules that prescribe lines of action. The vital difference between proscriptive law (Thou shalt not) and prescriptive law (Thou
Figure 11 The position of "Housing" in a matrix representing two major dimensions of a problem situation (using Stuart and Lee's matrix, 1983).
shall) is that proscriptive law provides limits that can be compared to streets allowing freedom of movement within boundaries which may not be crossed, while prescriptive law provides lines to be followed which can be compared to railway lines in a marshaling yard (Turner, 1977).

Housing legislation is basically formulated and passed at a national level. However, various regions and localities may have supplementary regulations. In Egypt, formal housing is considered that which is built according to national and local standards and regulations. Informal housing is considered that which is built by the private sector but which is not in accordance with national standards, local zoning regulations, or building codes.

3. Policy planning and programming formulate specific policies, including actual decisions, designed to carry out the chosen courses of actions. In this respect, planning decisions provide the blueprints for the translation of broad intentions into more specific commitment of resources required, including financing, to achieve agreed-upon goals. Programming involves a more specific definition of objectives, scheduling commitments as to the activities that must be taken "next," along with the allocation of particular input resources to accomplish these activities (Steiss, 1975).

4. Environmental planning and design arrives at developing specific proposals for the future use of designated environmental resources, supposedly in accordance with agreed upon strategies. It involves the manipulation of actual conditions to achieve desired goals and satisfy sensed needs. It is a mediation between actual site or environmental characteristics and program demand or requirements. It may be carried out at various scales ranging from a single space, a house, a housing group, a neighborhood, a whole community or a region. The principal actors in this phase are the professional planners, architects, landscape architects, civil engineers, and in some cases the prospective users themselves.

5. Production and marketing, the actual provision and supply of housing, involves the execution of plans and designs related to the housing
unit and surrounding environment, marketing or distribution, and acquisition of the housing product.

The supply of housing depends upon the cost and availability of important factors in its production e.g. the cost and availability of labor, land, materials and capital. It also depends on the rate of new construction, removals from the stock and vacancies (Meeks, 1980).

Housing can also be the product of a self help effort where the users, through self reliance or group cooperation, embark on building their own homes. In some cases governments or housing agencies may provide self-reliant home builders with sites and basic (initial) services, or even the essential core of the house (sanitary unit), or just technical assistance and training.

6. Consumption, management, and maintenance involve the use of housing and its environment, as well as managing and maintaining spaces, equipment, structures, and services, in other words, the use and care of housing. In single family, owner occupied units, management and maintenance are clearly the responsibility of the consumer. In multi-family housing (rental, condominium ownership or cooperatives), management and maintenance may be a collective responsibility or it may be delegated to certain representatives or assigned to a professional body. In many cases management or maintenance responsibilities are undefined and sometimes ignored or purposely eliminated due to budget cuts.

7. Renewal and upgrading is necessary because with constant use, wear and tear will take its due course. This depends on frequency and intensity of use, durability of materials used and use and care habits. Regular wear and tear as well as unexpected problems necessitate renewal and upgrading of the housing structures, services and environment. Replacement and modification may be needed. With respect to renewal and upgrading, terms used to assess and describe housing conditions include the following:

**Standard housing** Housing of sound structural condition, with all plumbing facilities (bath or shower, flush
Substandard housing

Housing in deteriorating or dilapidated condition, or lacking some or all plumbing facilities, (bath or shower, flush toilet, and sink), lacking a complete kitchen for the exclusive use of the household. It is also housing which does not meet requirements of local building and housing codes. A deteriorating condition is a condition of lowered physical quality that can be upgraded. A dilapidated condition is a condition of the lowest physical quality that is unacceptable and unrepairable and therefore necessitates abolition.

3.1.3 Housing as a Product

The output of the housing process is a product which is the dwelling unit within a particular setting or environment. In other words, it is the physical structure, the space within and around it, supporting facilities, services, and equipment. Housing production employs land, labor, building materials, management, finance, and technology. The economy and efficiency of production depend on a variety of factors, as do the rate and volume of production. Variable descriptors of the supplies and services produced relate to cost, quantity, quality, and price. The product is, generally, subject to specific controls and standards as buildings codes and land use regulations. Building codes regulate the construction of new buildings and the substantial rehabilitation of existing ones. They are designed to insure that adequate standards are met with respect to durability, preventing the development of unsanitary and unhealthy conditions, and protection against fire, collapse, and other hazards. Local code enforcement inspectors are responsible for issuing
building permits, inspecting and approving building and renovation plans, and inspecting and approving work when it has been completed (Hartman, 1975). Building codes may imply either specification or performance standards. Specification standards identify specific permissible materials and procedures, thus laying lines for manufacturers to follow, while performance standards identify a minimum level of performance, thus setting limits to what practitioners may do (Turner, 1977). The type of standards employed may encourage or impede technological advancement and innovation with regard to materials used, general design, and method of production.

Housing as a product is also subject to land use, zoning, and subdivision regulations which are aimed at the protection of valuable resources and the promotion of community interest, health, safety, and welfare. Such regulations may relate to the conversion of raw land into building tracts and essential services and improvements (roads, utilities, etc.) or they may regulate the use of land to avoid incompatibility and nuisances. They may also regulate bulk, density, and land coverage. They can be rigid and restrictive or flexible and performance oriented. Some of these regulations may also provide incentives for preferred types of development.

In Egypt, as elsewhere, the basic materials used in the production of housing, have not changed so much over time as have their frequency and application. For example, there has been a significant increase in the use of prestressed and precast concrete for walls, floors and ceilings. Plastic is being used more in plumbing systems. The use of wood in its familiar forms is decreasing because of the high cost of lumber (e.g., hardwood floors and wooden windows are no more the standard features). However, basic building materials still include sand or clay bricks, cement blocks, steel, wood, concrete, aluminum, glass and plastic. Other materials are also used for finishing exterior and interior surfaces.

Industrialization in housing involves the application of advances in production methods and techniques, equipment, and organization and management. Industrialization of housing production has been evolutionary, beginning with small elements and progressing to larger, more complex
components. Examples of these manufactured items include electrical 
parts, windows, kitchen cabinets, prehung doors, roof trusses, utility 
covers and exterior wall panels or units. The most visible changes in 
construction techniques and methods are the complete housing "packages" 
or packages of major components of housing.

Other advancements have been made regarding on site construction to 
allow saving of time and/or money. These may relate to construction 
techniques or to scheduling and flow of operations.

Design factors are also important in the economy of housing pro-
duction. These factors include: form, size or area, number of rooms, 
height of ceiling, method of horizontal grouping, connecting spaces and 
methods of vertical grouping.

One of the problems of housing production has been violent ups and 
downs at times of economic prosperity and depression. A multiplicity of 
factors contribute to wide fluctuations in the volume of construction, 
for example, the cost of construction relative to the existing level of 
rents and value, the money available to spend for housing and quantitative 
requirements such as new family formation and migration (Beyer, 1969).

Figure 12 provides a summation of the integrated concept of housing 
as a need, a process and a product. Housing does not exist in a vacuum, 
it is embedded in its environment which is a source of critical impacting 
factors. It is also a subsystem of society that interacts with other 
subsystems. Feedback from the environment helps in the on going evalu-
atation and adjustment of housing policy.

3.2 A HOUSING SYSTEM MODEL APPLICABLE TO EGYPT

Often the study of housing is done through the development and ap-
plication of a theoretical model as a simplified, explicit representation 
of a real world situation. The model is simplified because reality is 
too complex to be modeled perfectly; therefore only those factors that 
are considered to be more important are incorporated. In other words, 
the model is an approximation of reality and can provide the basis for 
the refinement and testing of detailed hypotheses which in turn should 
lead to further refinement of the model (Strategic Management for the
HOUSING ENVIRONMENT: SOCIETAL SUBSYSTEMS THAT IMPACT ON, AND ARE IMPACTED BY, THE HOUSING SYSTEM

HOUSING NEEDS → HOUSING PROCESS → HOUSING PRODUCT

POLICY FEEDBACK: APPLYING THE LESSONS OF PAST EXPERIENCE

Figure 12 The Integrated Concept of Housing (Summation).
USGS, 1983; and Morris and Winter, 1978). Tichy, (1981), discussed the need for new models that bring together dominant technical, political and cultural traditions that have guided thinking about organizations and the practice of change, in order to provide managers of change with the necessary set of strategic tools. The use of a systems model, in concert with an examination of the dynamic processes of decision-making, would appear to be the most fruitful approach to the analysis of urban politics and public policy related to housing (Steiss, 1974). The model used in this research, hopefully integrates various strands of the strategic "rope".

In general, through the housing system, a society provides shelter and an environment for the fulfillment of basic human needs. Housing as a need is an input to the system, housing as a product is an output from the system and housing as a process includes the throughputs for the conversion of inputs to outputs.

The housing system is embedded in its environment, which is the source of resources, constraints in the public decision-making process, and impacting factors that may help or hinder the effective progression of urban housing strategies.

Figure 13 represents the housing model developed and used in the research. The model has the following main features.

1. The Environment. The housing process exists within the context of the national environment and the broader international or global environment. In this respect, housing is viewed as a subsystem of society which interacts with other subsystems, mainly the socio-cultural system, the political-legal system, the economic system and the natural and man-made physical systems. The interactions among these systems are continuous and represent dynamic relations, some of which pertain to the family as a subsystem of society, to the housing market and to public policy making, Figure 14.

The principal actors within the environment include the broad community sector, the public sector, and the private sector. Actions are channeled through and impact on the interactive subsystems of society. Actors from these sectors include housing suppliers, investors, producers, intermediaries and owners as well as users of
INTERNATIONAL (GLOBAL) ENVIRONMENT (1)

NATIONAL ENVIRONMENT (1)

INTERACTIVE SUBSYSTEMS
- Physical
- Socio-Cultural
- Political-Governing
- Economic

FEEDBACK IN TIME

PRINCIPAL ACTORS
- Community Sector
- Public Sector
- Private Sector

IMPACTING FACTORS* [Helping/Hindering (-) Forces]

INPUTS (3)
NEEDS & VALUES
DEMANDS
RESOURCES
- Land
- Materials
- Human
- Technological
- Financial

THE HOUSING PROCESS (SUBSYSTEM) (2)
- Strategic Planning
- Legislation
- Policy Planning and Programming
- Environmental Planning & Design

OUTPUTS (4)
PRODUCTS
- Supply
- Services

IMPACTS ON
- Cost
- Quality
- Quantity
- Price

Figure 13. The Housing Model Developed and Used in this Research, A Model Applicable to Egypt with Particular Focus on Impacting Factors.
Figure 14 The concept of dynamic relations in the ecology of housing

[← Boundary interchange] [→ impacting factors]
housing who are families or individuals comprising the households. Satisfaction of the users results from the matching of the housing product to their needs, norms, values and financial capacities or affordability. Within the environment certain forces and factors may impact on the housing process. These may help or hinder the effective progression of urban housing strategies. They may be controllable, indirectly controllable, or uncontrollable and may represent opportunities or threats to the housing system. The magnitude and strength of the impacts of these forces and factors vary tremendously. It may be a determining or causal impact, a critical, i.e., most powerful and influential impact, a strong or minor, or even non-significant impact, Figure 15. In the Egyptian situation some of the factors that seem critical are:

1. The state of the economy and its general direction.
2. The ideological and political climate.
3. The direction, structure and functioning of the general governing system and its relationship to the housing subsystem, in terms of dissemination of responsibilities, allocation of resources and level of control.
5. International relations and events.
6. Demographic trends and changes.
7. Cultural trends and changes.
8. Technological advancements (and available technologies).
9. Availability and accessibility of various resources as well as control over their use.

2. The housing process. Through the housing process resources are converted into products and services that meet human needs and housing demand. The process has various phases and involves various actors at a hierarchy of levels. As mentioned earlier, phases in the process include: a) strategic planning, b) legislation, c) policy planning and programming, d) environmental planning and design, e) production and marketing, f) consumption, management, and mainte-
<table>
<thead>
<tr>
<th>Relative Strength of Impact on Strategy Success or Failure</th>
<th>By Potential for Policy Intervention</th>
<th>By Threat or Opportunity</th>
<th>By Interactive Subsystems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly Significant</td>
<td>Strong - Critical</td>
<td>Most Powerful</td>
<td>Influential</td>
</tr>
<tr>
<td>Controllable</td>
<td>Indirectly Controllable</td>
<td>Uncontrollable</td>
<td>Hindering</td>
</tr>
</tbody>
</table>

Figure 15 Classification of impacting factors.
nance, and g) renewal and upgrading. Principal actors in the process include: 1) the public sector with all its agencies and authorities, 2) the private sector and the community or third sector comprised of civic organizations or associations which may be formal or informal and in which the broad base of users and consumers of housing are represented. The hierarchy of levels spanned by the process includes: 1) the family and personal level, 2) the housing group, 3) the neighborhood, 4) the local community, 5) the region, 6) the nation, and 7) the international level.

The focus in this research was on strategic planning which sets policies forming the strategy and providing directions for the controllable critical factors in the housing situation. They also set the directions for housing legislation and subsequent housing policies and programs and implementation procedures and controls.

Certain forces and factors within the housing process may also help or hinder the development or the effective implementation of housing strategies. Thus they may represent strengths or weakness in the housing process.

3. Inputs to the housing process include known needs, values, demands and available resources.

Known needs, Values and Demands. The need for housing continues to exist. It has quantitative as well as qualitative aspects. When the housing need at any point in time is inadequately met, a housing problem arises. The problem in turn may raise specific issues that call for national or international attention. Needs may eventually take the form of expressed or unexpressed demand.

In this research, housing need progresses from survival to welfare and fulfillment levels, as explained earlier in the chapter. In determining national housing requirements, housing need should not be confused with housing demand. The former is viewed by the U.N. as a social measure of difference between actual conditions and an accepted standard while the latter is viewed as an economic measure based on the ability of households to pay for acceptable accommodations as needed, (United Nations, 1976).
The demand for housing is based on such factors as income, household formation, price of other goods and services, and household composition, size and preference.

It is essential in this respect not only to recognize the values held by the particular society at a particular point in time or stage of development, but also to be able to distinguish between those values that are continuously and widely shared by the society which may be considered absolute and values that are subject to change, individually or collectively and which reflect a difference or shift in attitudes, which may be considered relative.

On one hand, it is essential that housing strategies be compatible with generally upheld core values. An attempt must be made to recognize those values, especially values that relate to cardinal decisions affecting the vitality, welfare and security of the community. On the other hand, it may be futile to reflect a variety of differential values in a housing strategy, therefore it is important that due respect is given to allow for a reasonable degree of choice among alternatives and adaptation of general guidelines to suit variant needs reflecting variant peripheral values.

Available resources. Every community has special circumstances, unique to its nature, stage of development, and situation. The power and ability to achieve community goals depends on the availability of natural, material, or human resources and efficiency in allocation and mobilization of these resources.

An economist uses the term resources to refer to money or things that can be readily converted into money. A political scientist uses the term political resources in a somewhat broader context to include resources such as access to money, or control over information, intelligence, education, skills, rights, control over jobs. However, the importance of resources lies less in their potential availability than in the actual extent of their application and in the skills with which they are applied (Steiss, 1975).

In this model, the implementation of a national housing strategy is seen to involve the utilization of a multiplicity of resources pooled from the resource base and include the following:
(i) **Land** is a resource commonly assumed to be controlled by law or corporations, whether public or private. It may be found within the existing built up areas or outside them.

(ii) **Financial resources** include government funds, tax revenues, international loans and grants, national/civic investment funds, and sometimes mixed investment funds (national and international - community and profit oriented business funds.).

(iii) **Material resources** are building materials like cement, steel, stone, aluminum, brick, mudbrick, as well as building equipment and energy resources.

(iv) **Human resources** include labor, human effort and human energy, professional, technological, and managerial skills and methods as well as sincere thought, readiness and willingness to cooperate and serve.

(v) **Technological resources** refer to the possible and available means of building, repair and renewal of housing structures, provision of suitable sites and services (Infrastructure and Environmental Services) as well as their maintenance and replacement when needed. Technological resources may be advanced large scale, or intermediate and small scale technologies used by people and small organizations.

4. Outputs. The implementation of the strategies yields certain results and impacts. The results are in the form of specified products and services, such as housing units built with certain specifications and for certain user groups and supporting services. The relevant product may qualify as mere shelter, decent housing or adequate housing according to the level of need it satisfies. The product may vary in terms of cost, quantity, quality, and price. Concomitant impacts or spillovers may result. These may be intended or unintended. For example, limitations on housing unit size may minimize costs, maximize the use of available urban land, and induce smaller family size. However, they may be unintended impacts such as increased social or psychological stress, migration to other countries where housing conditions are less stressful on the family, disruption of intact families, the spread of bribery, or any form of
corrupt behavior to avoid compliance with such limitations on unit size.

5. **Feedback** from the impact of the policies and programs or grand strategies affects future inputs and shapes new demands upon and within the housing process and possibly on other interactive subsystems. Feedback may be assessed while monitoring the implementation of the general strategy or limited applications on an experimental basis. Feedback from the users of housing or their representatives can also be enlightening in terms of strategy evaluation and the choice among future alternatives.

Three of the most important dynamic relations in the model are the family as a subsystem of society, the housing market and public policy making and its impacts which are clarified below.

**The Family as Subsystem of Society**

Housing provides the structure and environment in which major family functions take place. Therefore, effective planning to satisfy housing needs requires an understanding of the family as a subsystem of society, its functions and development.

Society may be perceived as an amalgam of norms, goals, needs, values, resources, opportunities, roles, positions, and constraints. This amalgam, structured and organized in a total system, interacts with the family system which interacts with the overall system of society, be it the social, cultural, or economic system. **There is a boundary interchange between the family and the contextual society,** i.e., the family is affected by and affects society.

Disruption and disequilibrium in the societal system or failure to provide needed goods and services can cause repercussions and disruptive stresses in the family system. The family system accordingly responds either with adjustment behavior in norms or expectations, or adaptation in its structure. If the family fails to adjust or adapt due to internal characteristics of the family or due to the immense magnitude of stress that is beyond its capacity of adjustment or adaptation, pathology may result (Morris and Winter, 1978). The family, as a base of nurturant socialization, supplies the society with the most important resource and
actor in the society, the human being. The family reproduces the active members of society who constitute its present and shape its future. Society needs the family to survive, continue to thrive, and achieve its goals. To fulfill its social and developmental tasks, the family needs society. As society changes, the family loses or acquires certain functions (Parsons, 1977). Major developmental tasks entrusted to the family system include: physical maintenance, reproduction, socialization, allocation of resources, distribution of labor, placement of individuals in the society, facilitating the fulfillment of developmental tasks, and aspirations of the members, maintenance of motivation and moral, and keeping order.

All these tasks bear on and are affected by the overall societal system. Society provides the family with norms, values, and resources and opportunities for the fulfillment of the family developmental tasks at the various stages of the life cycle. Society also, through certain unfavorable conditions, could constrain and impinge on the family functioning causing stress on the family system. The family often has a resilience and ability to readjust and adapt to changing situations. For example, during a national economic crisis or a depression, families may adjust their economic behavior in terms of reallocation of financial resources, such as a tighter budget or borrowing.

The Housing Market

In Egypt as many other countries, housing markets transfer units from producers to consumers. However, housing markets are more complex than markets for most other commodities. Markets for many products operate quite efficiently; they frequently are well organized, have central exchange places, and both buyers and sellers usually possess knowledge of many forces which are at work. The housing market is frequently erratic and there is no smooth adjustment in supply and demand similar to that which exists for many other products (Beyer, 1969). Both the sale and rental housing markets serve several functions:

- Meeting additional permanent demand
• Meeting sudden or temporary changes in space requirement of individuals and families
• Meeting sudden stepped up demand in some localities due to war or a national disaster
• Determining the use of land.

The national housing market is in actuality a mosaic of many different local markets or submarkets. The evaluation and interpretation of the various demand and supply forces at work in the housing market, in the USA known as "housing market analysis" is undertaken for different purposes, which in turn determine the nature of the analysis. Lending institutions, public housing authorities, private builders and marketing consultants may conduct housing market analyses that differ in type and purpose. In some cases markets may not necessarily be local as in the case of mobile homes and prefabricated housing.

The housing market does not remain static. Its dynamism requires constant or at least, periodic studies. A local housing market may be out of balance either on the side of an excess of dwelling units over those demanded or on the side of excess of demand for units over those available. Furthermore, a market may be more frequently out of balance with respect to the quality and type of housing than with respect to the total quantity of housing (Beyer, 1969). In situations where a shortage of housing is not evident, a common measure of the degree of balance between supply and demand, both quantitatively and qualitatively, is the number and type of dwelling units that are vacant and available.

Public Policy Making and Its Impacts

Public policy making, in Egypt and other developing counties, is mainly directed towards responding to solving the housing problem. These responses reflect the general ideology and economic system within the national environment. For example, in a free market economy the market principles of supply and demand operate and the private sector is most active. In a market economy, the scale of values is given by the money value of commodities including time, there is an implicit assumption that every commodity can have a monetary value attached to it and that the
market forces of supply and demand operate to ensure that a fair and universally acceptable price is determined. The criterion of "profit maximization" is then used to evaluate alternatives (Wakely, 1976).

In a guided economy such as in Egypt, society may regulate or guide the private public sectors for the interest of the general public. It may regulate interest rates and mortgage financing, etc. It may encourage the civic sector or the communities to assume certain responsibilities in terms of resource management. The needs of families will be met in a variety of ways and alternative choices could be available.

Under welfare economics, the objective would be to maximize welfare. A preferred course of action would be that which left at least one member of society better off than before without making any other member of society any worse off than before (Wakely, 1976).

In a controlled economy, the public sector assumes most if not all the responsibilities of providing the family with goods and services. Often in this situation family aspirations are limited or curtailed to fit available choices.

Often policy makers are confronted with hard choices, especially in situations where the interests of all affected parties do not coincide; which means that outcomes of public policy may be beneficial to some groups and costly to others. These situations involve a hard judgement and determination of public interest. Unfortunately, the nature of public interest has often been a controversial issue, and so has been its measurement and incorporation into the planning/policy making process. Public administrators, while increasingly concerned with administrative ethics and decision making, have not yet addressed themselves to the necessary chore of defining a workable framework of moral choice, a viable framework of clear-cut reference points to make an ethical choice in the public interest (Henry, 1975). Some view public interest as an amalgam of net benefits. Others view it as residue or outcome of conflicting interests, a balance of interests, a compromise of interests and so on. With regards to the Egyptian environment, the following approach to public interest seems more appropriate.

Public interest can be approached as a continuously shared interest which may appear as public need (Redford, 1965). However, some may assume
that few interests, indeed, would be shared by everyone (Anderson, 1975). This may not deter communities from defining those few interests and establishing them as clear reference points that would help in the description, measurement and evaluation of other interests, just like the four cardinal directions (North-South-East-West) continue to be a guiding reference in terms of location. The closer a shared interest is to the reference interests, the closer it is to being a true public interest.

3.3 METHODOLOGICAL PROCEDURES FOR THE IDENTIFICATION AND USE OF CRITICAL FACTORS

The methodology for the identification and use of critical factors in the development and evaluation of housing strategies is based on the analytical model described earlier. It is comprised of nine major steps, the first five of which incorporate exploratory, observational, and analytical procedures. Four of them are covered in the research and the fifth is briefly illustrated in the Epilogue. The remaining steps involve participatory decision-making, comparative evaluation and actual implementation. Figure 16 shows the nine major steps of the critical factors approach to housing demonstrated in this research, and the expected product of these steps. These steps may be employed in cyclical iterations for the development and evaluation of housing strategies.

1. Initial reconnaissance of the environmental setting providing a series of overlays regarding physical, socio-cultural, economic, political, and administrative aspects which together present the holistic picture of the overall environment. This reconnaissance involves an investigative exploration of available literature sources, site visits, direct observations, and interviews to supplement or clarify information acquired through literature sources. This stage lays the ground for both the historical analysis and the assessment of the present situation. It may also provide insights as to the definition of the problem and potentials for its solution and possibly a set of impacting factors.
Figure 16: Critical Factors approach to housing: A methodology for the development and evaluation of housing strategies.
2. **Historical analysis of past experience** to identify factors that have previously affected the housing situation and which may be likely to continue. In this respect, history is viewed as a phenomenon. It is a transcript of the relentless surge of events which is the sequential and meaningful record of human activity. Historical analysis is an attempt to appraise accurately the meaning and relationship of events. It involves a chronological listing of occurrences and events and an interpretation of their meaning and their relation both to each other and to the problem under study, Figure 17 and Table 4. In doing so it is essential to rely as much as possible on primary data which lie closest to the truth and avoid secondary data that are more remote, less direct, and more likely to be contaminated by other influences (Leedy, 1974).

In this research historical analysis focuses on national housing policies since 1952 with special attention to (a) the issues they addressed, (b) their goals and strategies, (c) results and impacts, and (d) factors operating to affect results and impacts.

3. **Assessment of the present situation** involves an investigative analysis of the various active or interactive elements in the situation with the purpose of identifying the magnitude and nature of the current problem, current issues of concern, current policy directions and strategic options, and operative as well as potential impacting factors. The assessment is based on factual premises drawing upon official documents, site visits, and direct observations as primary sources of data. Other literature sources and interviews with public officials, consultants, professionals, and users of housing projects are considered supplementary or secondary sources for background information.

4. **Examination of the impacting factors**, identified in preceding steps, to investigate and define more clearly their nature, relative magnitude, and potential impact on strategy effectiveness. Factors that seem to be of great magnitude are considered critical and most worthy for consideration in the development and evaluation of alternative strategies.
Figure 17 Time span and main events for the period under investigation
Table 4  Historical analysis layout

<table>
<thead>
<tr>
<th>Period</th>
<th>Problem/Issue</th>
<th>National Urban Housing Policy</th>
<th>Impacting Factors</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1952</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1962</td>
<td></td>
<td></td>
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<td>1973</td>
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</tr>
<tr>
<td>1983</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
A few of these factors were selected for further analysis and demonstration of usefulness in developing a decision agenda. The analysis may include preliminary causal diagramming of the impacted and impacting variables, informed judgements as to the relative magnitude and preliminary rating of factors according to their relative significance.

The preliminary rating of factors, according to their relative significance, comes from two sources: (1) the factor's impact on the seven major variable categories, identified within the framework of the model and (2) the factor's relatedness to the criteria for effective strategies.

(1) Impact on Variables Within the National Environment

Based on the model, seven major variable categories have been identified within the national environment. These include: interactive subsystems, principal actors, housing process, resource base, housing product, user/families, and suppliers.

For each of these major categories, a subset of variables has been identified. Figure 18, showing those subsets was devised and used by the author to help herself in the systematic evaluation of the factors and ensure inclusion of all elements on one base map. If an impacting factor is judged to have an impact on any of the variables in the subset, one point is scored. For example, resource base as a major variable category has the subvariables of land, material, finance, human, and technical resources. Through the historical analysis, war was determined to have an impact on the five subvariables and scored 5 points in the resource base category and its r value = 5.

The average of the sum of scores of the seven major categories has the symbol R and is later used in conjunction with scores on the relationship to criteria of effectiveness of a strategy (R') to assess the overall magnitude of impact of the factor being analyzed.

(2) Relatedness to the Criteria for Effective Strategies
Impacting Factor Analysis and Evaluation Sheet

A. Statement of Factor:

B. Methodological procedure through which the factor was identified

- Reconnaissance of the Environment
- Situational assessment
- Historic Analysis

C. Impact on Subvariables:

- INTERNATIONAL (GLOBAL) ENVIRONMENT
- NATIONAL ENVIRONMENT

D. Effect of Impact

- Hindering
- Helping

E. Relationship to Criteria of Effectiveness:

- Human need relatedness
- Technical and political feasibility
- Social acceptability and desirability
- Efficient use of resources
- Viability for future contingencies

relatedness index: $R' = \frac{R}{7}$

F. Overall assessment of magnitude of impact $S = R + R' = ...

Factor classification according to magnitude of impact (proven or expected):

<table>
<thead>
<tr>
<th>Magnitude of Impact</th>
<th>Minor</th>
<th>Strong</th>
<th>Critical</th>
<th>Determining</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point score</td>
<td>0-----1-----3-----5-----7-----9-----</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Any score less than 0.5 is considered nonsignificant.)

G. Potential for Policy Intervention:

- Directly Controllable
- Indirectly Controllable
- Uncontrollable

Figure 18. Design of Impacting Factors Evaluation Sheet
Through a review of literature in the fields of housing, public policy analysis and evaluation, strategic planning and management, common criteria for evaluation of public policies and programs seem evident (Keane and Parris, 1982; Churchill et al., 1980; HUD, 1976; Quade, 1975 and Steger, 1983). For further discussion see Appendix E.

Based on this review, the following five criteria were deemed pertinent to the qualification of effective strategies and accordingly to the identification of critical factors.

- Human need relatedness and effective penetration of products, services or aid to those users of housing with the greatest need
- Social acceptability and desirability of solutions
- Efficient commitment of resources
- Technical and financial feasibility
- Viability for possible future contingencies

If the impacting factor was judged to relate to any number of these criteria, corresponding points are scored. The resultant score being \( R' \)

A special sheet was designed for the systematic examination and evaluation of impacting factors, Figures 18 and 19.

The sheet includes the following items:

A. Statement of Factor
B. Methodological procedure through which the factor was identified
C. Relation to environmental subsystems and subvariables, \( R \).
D. Effect of Impact
E. Relationship to qualifications of effectiveness, \( R' \).
F. Potential for policy intervention.
G. Conclusion: which includes an overall assessment of the factor and the magnitude of its impact as may have been evidenced in reconnaissance of the environment, the historic analysis or the situational assessment. The score on the overall assessment of magnitude \( S = R + R' \).
<table>
<thead>
<tr>
<th>STATEMENT OF FACTOR</th>
<th>METHODOLOGICAL PROCEDURES OF IDENTIFICATION</th>
<th>RATING AND SIGNIFICANCE</th>
<th>EFFECT OF IMPACT</th>
<th>POTENTIAL FOR POLICY INTERVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significance of Impact</td>
<td>Nonsignificant</td>
<td>Minor</td>
<td>Strong</td>
<td>Critical</td>
</tr>
<tr>
<td>points score</td>
<td>0</td>
<td>-1</td>
<td>-3</td>
<td>-5</td>
</tr>
</tbody>
</table>
5. Developing the Decision Agenda

The decision agenda is based on the holistic picture revealed by the analysis. It may be comprised of main issues to be addressed, fundamental questions to be answered regarding goals and priorities and apparent strategic options and policy variables with reference to the interaction of these options with the critical factors. It can be used in one of the following ways:

- A consensus building tool in participatory decision making;
- A demonstrative tool for policy analysis and evaluation;
- An agenda for public officials and citizen representatives in making decisions and choosing among alternatives;
- Administrative tool in training programs for housing students and practitioners.

The decision agenda is expected to broaden the participants' perspective of housing and ensure their awareness of critical factors in the housing situation and overall environment of the system.

Figure 20 shows an example of how a preliminary decision agenda can be tentatively set up. Figure 21 shows a matrix representing the housing process, its various phases, levels and principal actors. This matrix can be used by participatory decision makers to illustrate their suggestions of relative inputs of principal actors in the process as clarified in Chapter VII.

Certain group dynamic techniques may be applicable while using the Decision Agenda. For example: attitude surveys, nominal group technique (NGT), Delphi, charrette and brainstorming.

6. Choice of strategy (Participatory Decision Making)

Once the decision agenda is fully developed and the strategic options clarified and their interaction with the critical factors defined, it becomes easier to evaluate the options in terms of their merits and drawbacks and actually decide which alternative or combination of alternatives to choose.

This step in itself could be multiphazed involving an interplay of policy analysts, planners, and participatory decision makers. At the initial phase, a preliminary decision agenda can be used by the participants to build consensus regarding the issues, explore possi-
Figure 20. Sample Layout of a Preliminary Decision Agenda
<table>
<thead>
<tr>
<th>Phases of Principal Actors</th>
<th>Strategic Planning</th>
<th>Legislation</th>
<th>Policy Planning &amp; Programming</th>
<th>Environmental Planning &amp; Design</th>
<th>Production &amp; Marketing</th>
<th>Consumption Management &amp; Maintenance</th>
<th>Renewal &amp; Upgrading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public sector</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Private sector</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community sector</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Users &amp; Consumers</td>
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<td></td>
<td></td>
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<tr>
<td>Levels of action</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International</td>
<td></td>
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<tr>
<td>National</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Regional</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Neighborhood</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Family &amp; Personal</td>
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</tbody>
</table>

Figure 21. A Tool for Graphic Representation of Input of Principal Actors in the Housing Process
ble goals and generate alternative policy options. Through verbal discussion and sharing of preliminary assessment and setting of these goals and options, participants can compile a list of acceptable feasible goals and alternative policies to achieve these goals. Policy analysts and planners can then work on that list to provide a more accurate comparative evaluation of the merits of each proposed alternative in terms of their relationship to the critical factors identified earlier, impact on affected groups, equity and the expected levels of efficiency and effectiveness of each alternative. In this respect traditional policy analysis and evaluation techniques, such as cost-effectiveness, may be utilized where applicable. This comparative evaluation can then be submitted to the participatory decision makers to reconsider the options, set priorities among the goals and select a desirable strategy. Figure 22 shows a preliminary design of a comparative evaluation form that could be used to communicate the summation of the analysis to the decision makers.

7. Linking the strategy to implementation decisions Finalization of the strategy and linking it to implementation decisions involves definition of instrumental objectives and steps to be taken including the implementation channel or tool used for each step which means the articulation of the following:

(a) Clarification of the principles upon which the strategy is based:
   **Principles** provide guides and delineate the resolution of issues.

(b) Identification of strategic goals, objectives and time horizon:
   **Goal** stage broad results over a comparatively long period of time, i.e., where do we want to be? They also assign responsibility and accountability and specify why particular actions are proposed.
   **Objectives** specify key results to be accomplished, target dates, i.e., what realistic attainable actions are to be accomplished and when. In the strategic planning phase of the housing process, these objectives are mostly end objectives. Separation of goals and objectives assists in accomplishing desired results. Frequently, it is necessary to accomplish several objectives in or-
Summary of Comparative Evaluation Form

<table>
<thead>
<tr>
<th>Strategic Options Characteristics</th>
<th>Alternative A</th>
<th>Alternative B</th>
<th>Alternative C</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Goals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broad Policies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Horizon</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualifications for Success</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Human need relatedness-priority</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Responsiveness to critical factors</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3) Viability for future contingencies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Social acceptability and desirability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Equity/Impact on affected groups</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Technical and political feasibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Efficient use of resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost-effectiveness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net worth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost/benefit</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 22. Preliminary Design of a Form for Comparative Evaluation of Strategic Options
der to achieve a single goal. In other instances, one objective may contribute to accomplishing several goals. Failure to perceive such different circumstances can serve as an impediment to success.

**Time Horizon:** The time frame anticipated or defined for the accomplishment of the strategy. The key point is that the time horizon should not go beyond the period in which the major impacting factors can be described with some degree of certainty.

(c) Definition of key policies to achieve the goals:

A policy is a guide to present and future decisions delineating a general course of action for the fulfillment of goals and objectives. The type of policies included in a housing strategy may be:

(i) **Policies defining responsibilities in the housing process**
(ii) **Land and infrastructure policies** related to land delivery, land tenure, control of urban growth, land use regulations, provision of services and infrastructure,
(iii) **Financial policies** related to the level of investment or allocation in the national budget, financial exchange regulations, loans, grants, subsidies, cost recovery, taxes, and management of special funds.
(iv) **Policies related to building material,** e.g., the use of local resources or importation, export and import controls, production policies, price control, subsidies, standards and specifications, etc.
(v) **Labor policies** e.g., employment regulations, laborers rights and protection, migration control, laborers training etc.
(v) **Policies affecting housing legislation** e.g., policies related to tenure type and security, rent, tenant rights, maintenance obligations, etc.

(d) Selection of measures of effectiveness evaluation.
(e) Identification of the areas in need of research. Important areas or factors in the situational assessment that need further investigation or for which there is little or no accurate information.
8. Implementation of the strategy and its component policies and related programs would hopefully effect some change for the benefit of society. That change is in terms of resulting supplies and products or impacts. Implementation, thus provides feedback in time.

9. On going evaluation helps in the assessment of performance and effectiveness as well as the indication of reasons for ineffectiveness and suggesting of remedial action to be initiated. Retrospective evaluation, helps in the assessment of outcomes of strategy implementation in terms of goals achieved, and impacts whether on the short or long term effects. In any case, evaluation is expected to be primarily forward looking, assisting in the decision of what to do next (Steiss, 1976). Thus, the whole process is recycled in time and another iteration of the critical factors approach is applicable.

A focal point of policy evaluation or what has often been called Evaluation Research is developing measures and methodologies of comparison. Although measurement and development of social or action program indicators has become a vast and complex field in and of itself, yet a great deal of work is still needed in the area of non-economic (social well-being/quality of life) accounting processes in order to fully operationalize many aspects of evaluation research (Steiss and Daneke, 1980).

This chapter was a development of the conceptual framework of the research including the conceptual model of the housing system, and methodological procedures derived to guide subsequent analysis within the general framework of a critical factors approach to housing.
In this chapter an attempt is made to apply the housing model described in Chapter III, in retrospect for the analysis of the Egyptian housing experience over the past 30 or more years. This is done with the purpose of identifying factors impacting on the housing situation during those years. The analysis will follow through five distinctive eras marked by major events and transformations in the Egyptian environment. For each period the analysis will include the following:

1. **Environmental background** which is a description of the environment context and changes, national and global, during the particular era, as potential impacting factors and active forces.

2. **The housing situation** in terms of housing need, demands and resources, housing problem and issues raised which are considered inputs to the process.

3. **The housing process** operating in that era, and the general direction of the national urban housing policy in particular.

4. **Results and impacts** of the national urban housing policy on the housing situation in terms of housing production levels, quality and satisfaction of need. These present outputs of the process.

5. **Conclusion** and identification of impacting factors that affected the progression of the housing policy and achievement of housing goals. Conclusions for each of the five eras have been compiled and saved to the end of this chapter so as not to lose the thread of continuity.

The landmark events of that period were the occurrence of the 1952 Egyptian revolution, the nationalization of the Suez Canal and the Triple Aggression on Egypt, the socialistic transformation and the July 1962 laws, the 1967 Arab-Israeli war, the 1973 crossing of the Suez Canal, the 1974 open door policies, the 1979 Camp David accord and peace treaty with Israel followed by the boycott of Egypt by the Arab countries, and lately...
the reconciliation of Egypt and many of the Arab and Islamic countries in 1984.

The analysis will accordingly follow through five distinctive eras: (1) before 1952, (2) the 1952 Revolution, (3) 1962 experimenting with socialism, (4) 1967-1973 State of War, and (5) the Post 1973 Peace and Open Door Policy.

A composite chronological sequence of (a) national urban housing policies and related plans and legislation and (b) the major environmental changes and events were compiled to aid in following through the analysis. The table is included in Appendix F.

4.1 BEFORE 1952

Environmental Background

Beginning in 1878 Egypt was under the British occupation. At that time the country was being ruled by the family of Muhammed Ali, who was considered the founder of modern Egypt. The economy of Egypt depended mainly on agricultural production and the feudal system. National industry was quite limited. There was a national movement for independence and reform. A multi-party system was operating. General elections were periodically held to chose the people's representatives in the parliament. The king appointed the prime minister from among the leaders of the parties. During World War II the importation of building materials was interrupted and much of the labor force was recruited to serve in the military, which was then under British command. In 1948, some of the army troops were involved in the Palestine War and suffered heavy losses.

Prior to the 1952 Revolution, there was a period of great unrest and a wave of assassinations and violent strife. The great fire of Cairo in January of 1952 was the landmark incident that prompted the revolution in July of the same year.

Housing Situation

With the French Expedition to Egypt and the British occupation, the western influence gradually increased in all walks of life, coupled with a continuous inner search for self identity. This was strongly reflected
in the changing urban pattern and architectural styles. Until the end of the Nineteenth Century A.D., urban houses were either luxury castles for the rich, who were few, or large complete buildings where the head of the extended family and his sons and their nuclear families lived. The buildings were limited in height and were made from brick or stone and wooden roofs. Most of the buildings were owned by their occupants.

Till the mid 20th Century, the layout of cities like Cairo expressed the realities of the time, a strong western influence and presence, a growing capitalism coupled with a growing middle class, and a form of liberal government. In Cairo, for example, the old city remained very much the same while new communities were built to the north, south and east. Some areas were exclusively residential for the foreign communities, ruling elite and the Egyptian upper middle class. The architectural styles varied considerably from English countryside houses in Maady, Italian villas and French chateaux in Garden City and Zamalek to Islamic style buildings in Heliopolis. This variation expressed the different effects of the western influence in Cairo. These neighborhoods were well-planned according to European standards at the time: wide streets, green areas and low population density. Both the planning and the design expressed the life style of the residents. Between the Old City and the outer upper class communities stretched middle class neighborhoods. Some of the foreign communities with lesser wealth were living in these areas, mainly Italian, Greek and Armenian. The planning of these neighborhoods was linear in character. A single wide street in the middle, acting like a backbone for the neighborhood, with a network of narrow streets stretching on both of its sides. The main street was the shopping and entertainment center of the area. The Tramway - the main mean of transportation at the time - ran through it. Wealthier middle class residents lived in this street and the less wealthy lived in the narrow back streets. Workshops were mainly located in back streets. Most of the buildings were apartment buildings attached to one another. They varied in height but mostly they were four to five floors high. Balconies and bow-windows gave these buildings their architectural character. Their qualities varied according to the characteristics of the owners, as to financial capabilities and artistic appreciation. The dwelling units in
the main street were relatively large; from four to six rooms, with an average area of about 150 m². The floor height was about four meters and the rooms were large. Finishing materials were of good quality. The dwelling units in the back streets were smaller in area and had fewer rooms. In the late forties Madinet Al Awquaf was planned as a residential area subdivided among different syndicates; Engineers, Physicians, Journalists and other groups such as University Professors and Police Officers (Rageh, 1984).

Before World War II there was no apparent urban housing problem in Egypt. In both urban and rural areas there was a sufficient supply of housing at affordable costs. With World War II some housing deficit was sensed, the demand was greater than the supply. The passing temporary crisis was mainly due to the interruption of import of building materials--like steel and wood--and the military recruitment of the labor force. With the termination of the War, the flow of basic building materials was resumed, the homes that were used by the allied forces as camps, were evacuated, recruits were sent back to their original bases and the labor crisis was over (Socialist Labor Party, 1982).

The Housing Process

During the early decades of the 20th century housing was largely a matter of private initiative and popular activity. Most of the buildings were owned by their occupants. It was not until the middle of the 20th century that leasing became clearly known when many investors put their money in housing for guaranteed returns (MOHR, 1976). With the temporary housing crisis which occurred during World War II, the Egyptian government intervened by ordering a rent freeze and denying owners the right to evict occupants (Hanna, 1978). This was done through the 1941-1945 Marshal Orders numbers 598 and 604, 1945-1946 laws no. 97 and 140 and the famous 1947 law no. 121 which was considered a temporary charter governing the relationship between owners and occupants until the disappearance of awkward economic conditions, conditions which required the dysfunction of some aspects of the civil law (Ambar, 1981).
Results and Impacts

In the late forties economic recovery was on its way and housing construction was resumed to meet demand but at much higher rents than before World War II (Hanna, 1978).

4.2 THE 1952 REVOLUTION

Environmental Background

In July of 1952 a landmark event took place. This was the occurrence of the 1952 Egyptian revolution which ended the Monarchy of King Farouq and declared Egypt a republic. A revolution leadership council was established and the following six goals were declared:

1. Ending British occupation of the Suez Canal Zone.
2. Ending Feudalism and misuse of land and oppression of those living on it.
3. Ending monopoly and the control of capital over government.
5. Building a strong national army.
6. Establishing a sound democratic life.

Accordingly, the Agricultural Reform law was introduced, limiting ownership of agricultural land to 200 acres per individual. Any land in excess was confiscated and distributed to small owners or renters of these lands. The British occupation of Egypt was ended, soon after the revolution. All political parties were abolished and were later replaced by the national union. Members of the union were elected by the general public in 1958. However, in 1956, when late President Nasser nationalized the Suez Canal, Britain, France and Israel attacked Egypt militarily. During the 1956 Suez War, many foreign residents departed from Egypt, leaving behind a great number of vacant housing units.

During this period Egypt witnessed major industrial development, a stronger and wider participation of the state in national affairs and a genuine interest in the welfare of limited income groups (Rageh, 1984). Initial labor legislation raised minimum wages, reduced working hours and
created more jobs in order to reduce unemployment. Expenditure on education was increased with the goal of educating all citizens. A policy for providing employment to all university and professional school graduates in government services, was initiated and practiced. Ambitious economic five year plans were first presented in 1960, calling for doubling the gross national product by the end of the decade (Nyrop, 1983).

Housing Situation

When the revolution occurred, rents for new housing were agreed upon directly between tenants and owners and there seemed to be no evident change in the urban housing situation described earlier.

Housing Process

At the earlier stages of the 1952 revolution, major decisions were made by the revolution leadership council which was composed mainly of a number of so called "free officers." The council sought advice and consultation from civil specialists in the various fields. Until 1958 housing was a function of the Ministry of Town and Village Affairs. Later in 1958 the Ministry of Housing and Public Utilities was established. During that period, the national central government resumed the major responsibility of planning and development. In 1958 elections were held for representation in the National Union and the People's Assembly. At the local levels of the municipalities and governorates, elected representatives to the National Union participated in some decision related to housing and land development plans at the local level. The revolution leadership council was concerned with reducing the control of capital and fostering social justice. With the goal of achieving social justice and ending exploitation, the Revolutionary Council issued the 1952 law number 199 for reducing housing rents by 15% of the contract rent for all units constructed since January 1st, 1944 until September 18, 1952. Consecutive rent reduction laws followed at later dates.

In 1958, the government issued the second Rent Reduction Law reducing rents of units built between 1952 and 1958 by 20% of the contracted rental value. In 1961 another Rent Reduction Law was passed, all rents were reduced by 20%. Starting from December 1961 and the Government volun-
teered to give up the property tax for occupants which amounted to about 13.7% of the rent (Hanna, 1978).

In 1960 the first five year national development plan included a housing plan in which the government allocated 140 million Egyptian pound to build 300,000 new housing units. For the first time in Egypt's modern history low-cost housing was built on a large scale. Low-cost housing built by the government was limited to Greater Cairo region and Alexandria. No such housing was built in other urban centers. The layouts of these projects were very much the same, blocks of flats placed in parallel at short distances. No attempt was made to provide open green spaces. Essential social and physical services were also lacking. Population density was rather high, about 200 person per feddan (acre). Different types of low-cost dwelling units were tried: one-room, two-room and three-room apartments. The three-room units were more popular since they provided enough room to house large households and extended families. A small family could limit itself to one room and sublet other rooms to secure extra income. The areas of low-cost housing units varied from 25m² for smaller units to 65m² for larger ones. The average unit area was 52m². The average area per person was about 10m². The finishing materials were of average quality and cost per meter square was about L.E. 7. These housing projects were financed by the government through loans made available to the Development and Popular Housing Company, a public sector company specially founded for this purpose. Established in 1954, this company built low-cost housing and let the units at an average rent value of 5 Egyptian Pounds per month (Rageh, 1984).

The second type of housing built during this period was what might be called "industrial labor housing." Residential neighborhoods (sometimes called residential towns) were built for workers and employees attached to major industrial centers established at the time. Industrial towns were not limited to Cairo but were built around major industrial and production centers in other regions particularly in Aswan, Suez, and Alexandria. Planning and designing standards exceeded international levels. Population density was only 75 person per acre. Entertainment and other social services were provided for the dwellers. The housing units were mainly two-floor separate villas with an area of 220m² for
upper and managerial ranks of employees and three-room units of 85m² area in apartment buildings for labors and low ranking employees. Smaller units of 65m² area were also provided for single laborers. The general layout was less rigid and more in accordance with planning norms of that time (Rageh, 1986).

Results and Impacts
After the passing of the first rent reduction law, landlords may have been temporarily discouraged from providing more housing units for rent. However, investment was redirected from ownership of farm land towards real estate ownership of buildings in cities (since ownership of agricultural land was limited). After the passing of the second and third rent reduction laws, the private sector temporarily refrained from construction and then resumed it, but exaggerated the prices of rents of the new units in anticipation of another rent reduction law. Despite these legal shakings of the housing market, it was estimated that between 1952 and 1960, about 56,000 housing units were produced yearly, which amounted to at least half a million housing units that presently constitute a considerable portion and basic part of the real estate wealth. Most of these buildings were of reinforced concrete skeletons and red brick walls that endured and are still structurally sound, safely fulfilling their function (Hanna, 1978).

4.3 1962 EXPERIMENTING WITH SOCIALISM

Environmental Background
In July of 1961, the Egyptian Government made several landmark and critical resolutions that marked a turning point in the economic and social reform trend of the revolution. These resolutions were termed 'the July Socialistic Resolutions' marking the transformation from a Capitalistic system to a Socialistic system. The form of socialism adopted then, was considered to be indigenous, i.e., having roots in the Egyptian culture and not imported from external societies. The motto of that period was:
• achievement of a society of sufficiency and justice.
• dissolving differences between classes (socioeconomic classes).
• achievement of liberty, socialism and unity.

The July 1961 resolutions included the following:

1. Complete nationalization of 80 important large industrial and commercial establishments.
2. Partial nationalization of 80 other companies engaged in agricultural and contracting activities, i.e., the government owning 50% of the shares.
3. Partial nationalization of 145 other companies on the basis that no individual should own anything that had market value exceeding 410,000 Egyptian pounds.
4. Reducing the maximum allowed ownership of farm land per individual to 100 acres and limiting land rented per individual to 50 acres (Said, 1977).

Along with the socialistic transformation, the Government had embarked on an ambitious industrial and development program. The high dam was being built in Aswan along with programs for resettling people evacuated from lands in Nubia that were inundated after the rechanneling of the Nile River. Much of the building materials and labor were absorbed by these projects. The national union was replaced by the Arab socialist union to which members were initially elected by the general public and then represented in the hierarchical levels of the union. Elections were held in 1964 for a new National Assembly, and president Nasser then released a draft constitution that functioned until 1971. The constitution was based on the National Charter, presented earlier by Nasser and emphasizing freedom, socialism and unity. Nasser became a leader of Arab nationalism and unity. During that era, Egypt was dragged into the Yemen

* One Egyptian pound at that time was approximately equivalent to more than 2 United States dollars. In 1983 the official price of the Egyptian pound was 1.43 U.S. dollars while unofficially, the Egyptian pound was equivalent to about 0.77 U.S. dollars.
War in support of the nationalist government against the Saudi-backed royalists. This proved to be a great drain on the financial and military resources of Egypt, (Nyrop, 1983). In this era Egypt sought technical and military advice from the Soviet Union. However, Egypt's foreign policy was based on positive neutrality. At this era, narrowing, if not dissolving the differences among various income groups was a main issue that prompted the general redistributional policies and limitations on capital investment.

**Housing Situation**

The housing supply was expanding and there was no apparent urban housing shortage. Tenants of previously built dwellings rejoiced at the rent reductions imposed by the government. Public housing for lower and moderate income groups was expanding and local government was involved in building and marketing high rise condominiums. However the private sector contribution to the provision of new housing was gradually dwindling. The average dwelling unit area varied from 90 m² for three-room apartments to 120 m² for four-room apartments. The population density was about 150 person per feddan and the open area was 44% of the total area. Separate and attached small villas were built beside apartment blocks. The building cost was only LE 10 for a meter square. Housing units for government employees were built in Cairo and capital cities of other governorates. These were mostly three room units and were 85 m² in area (Rageh, 1984).

**Housing Process**

In the early sixties the Heliopolis Company and the Al Maady Company were nationalized. Nasser City Company was established. These three companies became the leading establishments in land development and housing construction. Sites were prepared with roads and infrastructure and made available to individuals and real estate companies. The 1962 law number 56 limited the rental value of a housing unit to an annual return of 5% of the value of land and 8% of the value of the buildings. Since then the government became a third party in the initial determi-
nation of rental value and the matter was no longer left to simple agreements between renters and owners of housing units.

The 1965 law reduced rents of all housing units constructed since 1944 up to October 5, 1961 by another 20% and units constructed after October 5, 1961 by 35% while exempting all units from the property tax (Hanna, 1978).

The second five year national development plan included a housing plan according to which the government assumed the responsibility of building housing units for low and moderate income families. Thirty-four percent of the units were designated for Cairo.

Results and Impacts

With the new limitations on the rental value of housing, the enthusiasm of the private sector to construct new housing was dampened. The overall rate of housing production dropped to less than 20,000 units per year (MOHR et al., 1976). Owners of rental housing gradually abdicated from the responsibility of maintaining the leased units.

4.4 1967-1973 STATE OF WAR

Environmental Background

In 1967, Egypt was struck by the June War which involved Israel, Egypt, Syria and Jordan. The national economy was hard hit and shaken. The country lost two major revenue yielding resources: the Suez Canal (since it was blocked) and the oil fields and refinery in Sinai and Suez. The budget had to be tightened and revenues redistributed according to the priority of that period which was national security and defense. Budget cuts in other non-military sectors were made. For example, allocations for maintenance were cut out. Egyptian involvement in Yemen was ended and Egyptian troops called back home.

In 1970, an Arab Summit Conference was held in Cairo to resolve the tragic situation that resulted from the hostage crisis and to end the Palestinian bloodshed in Jordan. Immediately after the Summit succeeded in ending the crisis, president Nasser died and was succeeded by President Sadat. In May of 1971, Sadat embarked on what was known as the "Correc-
tive Revolution," announcing new elections and a complete reorganization of the Arab Socialist Union. Two month's later, Sadat asked Soviet military advisors to leave the country. This move was widely approved by the public (Nyrop, 1983).

Housing Situation

Most of the building materials were directed to build fortifications for defense purposes. Hostilities continued for six more years and Israeli air raids were extended to the Delta region and other areas. Areas that were hard hit, such as the Suez Canal Zone, had to be evacuated. Its residents became refugees and migrants to other nearby areas, such as the Delta governorates, Cairo and Guiza. This in turn caused a stepped-up housing demand in these areas. The existing supply was not adequate and many migrant families had to double up with relatives or in any dwelling units to which they had access.

Housing Process

Since defense was the primary issue, the government added a national security tax amounting to 2% of the yearly rent for units that have an average monthly rent, per room, of three Egyptian pounds and 4% if the average monthly rent per room exceeded three Egyptian pounds (1967 Law No. 23 and 1968 Law No. 32). A 'Gihad tax' (another form of defense tax) was added in 1973. It was 4% of the net rental value to be paid by owners of real estate with an average rent per room exceeding 3 Egyptian pounds, in buildings constructed or occupied for the first time after the 5th of November 1961 (1973 Law No. 118). In 1967 the government allowed local councils to take a fee for general cleanliness purposes. The fee was not to exceed 2% of the rental value, (Ambar, 1981).

- In 1969 a Supreme Committee for housing and urbanization was formed. The committee was headed by the Minister of Housing and was responsible for determining allocation of investments formulating the general policies for rent and ownership, basis for land sale and dispensation of public real estate.
In 1972, the Ministry of Housing proposed a ten year plan in which it allocated 1900 million Egyptian pounds for building 2.6 million new housing units. Both the public and private sector were to be involved in executing this plan.

**Results and Impacts**

During that period of insecurity the rate of housing production did not exceed 30,000 units per year for both private and public sector combined. With no budget allocations for maintenance, deterioration of buildings, roads, and infrastructure were speeded up. The quality of the housing supply was lowered.

4.5 **POST 1973 PEACE AND OPEN DOOR POLICY**

**Environmental Background**

After the 1973 War, the military disengagement agreements and the moves towards a peaceful settlement in the area, the late President Sadat removed many of the economic and political restrictions of the previous era and encouraged a freer economic system and a more democratic atmosphere. He first allowed the multiplicity of political platforms within the Arab socialist union paving the way for the formation of various political parties, the cancelling of the Arab socialist union and allowing the existence of opposition to the governing, newly formed national democratic party. Most recently, in May of 1984, President Mobarak held the elections for the national assembly while allowing the various parties to present their own programs to the general public, in competition for their support.

Many refugees and migrants from the Suez Canal Zone, were able to gradually return to their cities (Port Said, Suez, and Ismailia) especially since the government mobilized funds, materials, labor, and equipment for the reconstruction of the badly damaged cities. The Suez Canal itself was widened and several tunnels were built under the canal to connect the canal cities to Sinai.

As to the nation as a whole, peace and security provided an opportunity for opening up the national market and attracting foreign invest-
ment to economic expansion and development projects. However, much of the incoming funds were directed to high profit, business oriented projects that served a limited segment of the native population or tourists from neighboring countries. Port Said, on the Mediterranean, was declared by the government as a Free Market Zone which in turn boosted the local economy. New industries came in, along with new investments, work opportunities and an economic boom. A new university was established in Ismailia, land is being reclaimed and cultivated in the vicinity of the city and developers are earnestly at work providing new housing and transforming scenic areas into second homes and tourist resort communities. Land is being subdivided and sold at relatively low prices in the northern coast near existing urban settlements and overcrowded cities of the Delta and the Nile Valley.

Housing Situation

At the beginning of that era, since the end of the 1973 war, attention was focused on the restoration and reconstruction of the canal cities and the return of the refugees to them. A few years later the government realized that urban housing conditions in other cities constituted a real problem with tragic dimensions. This was evident in the facts revealed by the 1976 census. The gross housing density in some of the dilapidated areas had reached over 140,000 persons per square kilometer. In Cairo at least 20,000 homeless families found shelter in temporary tents, shacks, mosques, and even tombs. Although, building construction was boosted, it mostly involved luxury condominiums, office buildings and hotels. For example, until 1973, land at Nassar city was sold for no more than L.E. 5/M². In 1976, the 7 Up company bought land, at Nassar city, from individual holders at L.E. 60/M². At present land in that city is sold from L.E. 100/M² for private holders and L.E. 40-50/M² from the public company that originally owned the land and which used to sell it for L.E. 3.5-5/M² until 1973 (Nor El Din, 1983). The upsurge in land prices contributed to the dramatic rise in the average cost of housing. Housing became less affordable to a larger segment of the urban population.

Housing Process
The task of reconstruction became a major responsibility of the Ministry of Housing which was then renamed as the Ministry of Housing and Reconstruction (MOHR). Aid and grants from neighboring countries and technical consultation and assistance from international firms and agencies were also geared towards the reconstruction of the Canal Zone. The government provided sites and services for new housing construction in the outskirts of the older canal cities.

In response to the escalation of the housing problem in other areas, the government put more serious effort in studying the problem and exploring alternatives to alleviate it. In 1976, the Egyptian Ministry of Housing and Reconstruction (MOHR) and the Ministry of Planning together with a team of experts from the Office of Housing in the United States Agency for International Development (USAID) submitted a report entitled: "Immediate Action Proposals for Housing in Egypt." A unifying concept which ran through all of the basic objectives, mentioned in the report, is that housing must be related to the people who need shelter and that the needs of households and their ability to pay were very different. Therefore, the starting point for formulating the housing strategy became the definition of the target groups of people who are of concern (MOHR et al., 1976).

Among the government efforts to facilitate housing finance, was the provision of relatively low interest loans. Funds for these loans came from housing bonds and vacant land sales. According to the 1945 law, any owner of a building whose value exceeded L.E. 50,000 paid 10% of its value as a low interest loan to the government to be returned after 10 years. These loans were termed Housing bonds and were reinvested by the state in economic housing. The bonds also included 2 to 3% of the value of the building that owners paid when the building license is issued (El Zoghby, July 1980).

In 1977, the government issued Housing Law Number 49 in which it modified the rent control formula designating that rental value was not to exceed 7% of the value of land and buildings and exempting high quality housing from such controls. The Law also demanded that building licenses for condominiums must not exceed 10% of the total investment allocated for each level of housing (economic, average, above average and luxury).
Another item of the Law specified maintenance obligations and allowed raising rents in the case reinforcement and restoration (upgrading) is completed. The government was to guarantee provision of facilitated, cooperative loans for maintenance and restoration of buildings. That law also prohibited those who held licenses to construct buildings which are totally or partially designated for luxury housing to benefit from any systems or privileges for the distribution or facilitation of acquiring building materials (Ambar, 1981).

In 1979 Dr. Mostafa Khalil, Prime Minister of Egypt then, formed a national committee to study the housing problem and propose a national policy or strategy to meet the problem. The committee in turn formed eight working groups concerned with the various aspects of the problem. These groups then presented their studies to the national committee and in a period of four months the general proposal was submitted to the cabinet (PNHP, 1979). In that proposal, the main core principle around which the strategy revolved was that of 'Central Planning and Decentralized Application or Execution,' with the establishment of links between them through various monitoring agencies (PNHP, 1979). The dominant theme was central public responsibility with the encouragement of private sector involvement. The main goal of the strategy was meeting the housing demand and providing housing for all those who needed it, based on an estimation and projection of need and demand. As to horizon, the strategy included a one year urgent plan (1978-1980) and a five year plan (1981-1985) to be followed by other five year plans until the year 2000. An estimation of the dwelling units needed by the year 2000 was 3.6 million units.

The proposal was accepted and declared the national housing plan. The plan represents the current strategic posture of government. Details of the plan are included in Chapter V; Assessment of the Present Situation.

Since the problem is not just housing, it is the over-crowding of the population on only 4% of the land, and since that area has been almost totally consumed, the government has given priority to spreading the population outside the limits of the 4%, i.e., away from the exhausted centers or conglomerations. Hence, the national policy became one of
establishing new communities with new attraction centers such as 10th of Ramadan industrial city, the 15th of May, Al-Sadat, Albour and the 6th of October city.

The government has made available land in new communities at low prices to control the upsurge in land prices and protect agricultural land, e.g. although it costs the government L.E. 30 to provide one square meter in the 10th of Ramadan new industrial city, the government scheduled selling prices so as to provide incentives to move and encourage early settlers of such a community. A special privilege is given to housing companies and corporations, that of assignment of land by the government to these companies at considerably low cost. Infrastructure may also be provided (El Zoghby, July, 1983).

In 1981 the new Housing Law Number 136 confirmed the designated limit for rental value and specified that at least two-thirds of the area of the building, comprised of more than one unit, must be designated for rent and that only one-third of the area can be for sale or lease as furnished units. This law exempted all buildings for housing from basic and additional taxes except luxury type housing.

This law has also specified that two thirds of 15% of the profits of public sector companies, allocated for services should be used to finance needed housing units for the workers in every company or group of adjacent (neighboring) companies. Anything which remains, in excess of meeting the needs of the workers, goes to a special fund to finance economic housing in each governorate.

Another item of the 1981 Housing Law mentions that the State should guarantee the support of cooperative activity and its provision of loans and building material according to the legislation regulating such activity. Facilitated loans are also being provided by the government, public bodies and the banking system to individuals who want to complete, expand or increase the heights of their buildings or invest in all levels of housing except luxury housing (Ambar, 1981).

Results and Impacts

In this era, both private and public sector investment in housing increased greatly. In a period of four or five years, 22,000 new housing
units were built in the Suez Canal Zone and more units were restored. The national rate of housing production climbed sharply. However, with the almost sudden changes from restricted, public sector dominated economy to a freer and less controlled economy and the world wide rising inflation, an unprecedented change took place. The following observations present fundamental changes that took place in the housing situation after 1973.

1. Land prices suddenly rose by more than 500%. Land prices in Cairo increase at compound annual rates of 25 to 40% (Hanna, 1978, Rageh, 1984).

2. The market price for housing construction rose by at least 300% due to the rise in profit by constructing companies, the increase in wages and price of building material. The cost of building materials and labor increased at annual rates of 15 to 20% which generally outpaced the rate of inflation (Hanna, 1976, Rageh, 1984).

3. A scarcity of labor due to allowing unplanned migration to neighboring Arab countries coupled with intense reconstruction activity in the Canal Zone, present a continuous drain of the building labor force. This in turn upset the traditional wages balance. Labor wages have increased to new heights and for the first time they by-passed wages and salaries of other groups particularly professionals and civil employees. Condominium buildings became a new type of investment with rapid returns on capital, (Hanna, 1978 and Nyrop, 1983).

4. Leasing furnished units, as a means of escaping rent restrictions enacted on unfurnished units, became phenomenal, (Hanna, 1978).

5. High key money was demanded by owners of new and old apartments (Hanna, 1978).

6. Formal low cost housing for limited income people came to a halt and was replaced by informal housing which became the main feature of housing development in Cairo. Middle income housing continued its normal course of expansion in its traditional locations. Luxurious housing appeared again after two decades of absence but in a different form (Rageh, 1984). Towers of luxurious apartments were built particularly along the River in Cairo, and the Sea in Alexandria.
7. To meet the rapidly growing need for dwelling units, and with the great increase in land prices, vertical extension on existing building became easier for investors than building new apartments on new sites. As much as half of the housing units added to the Cairo housing stock come about through adding new floors to existing buildings (Rageh, 1984).

8. Many structurally sound and functioning low rise buildings were demolished to be replaced by towers that were not only restricted to residential users. Some are used for commercial activities and office space for the new business firms. In this process, Egypt lost great architectural wealth that could never be replaced.

9. Many communities have lost their character and order, green acres have gradually disappeared, streets and public utilities have been strained with extra loads (Rageh, 1984).

4.6 CONCLUSION

In conclusion of the historic analysis, the following is a summation of the impacting factors identified for each era under study. Figure 23 provides a graphic representation of the developments in the housing system through the overall period and Table 5 shows land price development in the Capital of Egypt. The attempt is to trace the linkage among major environmental changes and events, main features of national urban housing policy, and major qualifiable results and impacts in the housing system. It is important to note that rural-urban migration and national increase in population continued to impact on the housing situation by increased demand.

6.6.1 Before 1952

Exogenous events such as World War II had a major impact on the housing situation. Housing construction was affected with the interruption of importation of building materials and the military recruitment of the labor force. This was accompanied by higher rents that prompted government intervention in the regulation of the tenant and landlord re-
Major environmental changes and events | Major results and impacts in the housing system
--- | ---
World War II - 1939 | 1941 Rent freeze
End of World War II - 1945 | 1947 Rent freeze, occupant rights
Palestine War - 1948 | 1951 Tax on rent
| 1952 Rent reduction (154)
| 1954 Real estate tax
| 1956 Defence tax on rent

Average cost of urban land in L.E./square meter | Average cost of urban housing L.E./unit | Housing production units/year
--- | --- | ---
15 L.E./m² | 1000 L.E./D-unit | 56000 units
65 L.E./m² | 3000 L.E./D-unit | 19000 units/year
290 L.E./m² | 6000 L.E./D-unit | 32000 units/year
65000 units

Figure 23 Tracing historic developments and changes in the housing system.
<table>
<thead>
<tr>
<th>Location</th>
<th>Price per square meter (LE/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In the sixties → early seventies 1973</td>
</tr>
<tr>
<td>Central business district of Cairo (C.B.D.) or downtown Cairo</td>
<td>not more than 100 150 not more than 200</td>
</tr>
<tr>
<td>Nile frontage/major districts</td>
<td>20</td>
</tr>
<tr>
<td>Popular quarters</td>
<td>10</td>
</tr>
<tr>
<td>Urban Fringe</td>
<td>5</td>
</tr>
<tr>
<td>Suburbs/newly developed areas or communities</td>
<td>2 → 5</td>
</tr>
<tr>
<td>Mokattam</td>
<td>2 → 4</td>
</tr>
<tr>
<td>Nasar city</td>
<td>3.5 → 5</td>
</tr>
<tr>
<td>10th of Ramadan</td>
<td>7</td>
</tr>
</tbody>
</table>

(Nor El Din & Yissa, July 1983)
lationship. With the termination of the war and resumption of housing construction, owners of new housing units were inclined to set the rents at levels higher than those before the war and the rent freeze marshal orders.

4.6.2 1952 Revolution

A major impacting if not determining factor in that period was the occurrence of the revolution and the political, economic and social change it brought about. A great emphasis was put on the achievement of social justice through supposedly fair legislation and programs that served the lower income segments of the population. Industrial development, the concern for laborers' welfare and increased productivity also helped shape some urban housing policies such as the provision of industrial labor housing.

4.6.3 1962 Experimenting with Socialism

An obviously important factor that impacted on the national housing policy, was the ideological change that affected the whole economic and governing system. The government gained more control over capital as well as building materials. It also intervened in commercial transactions through the imposition of specific limitations and formula governing profit. As the public sector grew and expanded the private sector shrunk and contracted.

4.6.4 1967-1973 State of War

The effect of war and continued adverse circumstances had a strong impact on the economy, it led to the curtailment of ambitious development plans, budget cuts and direction of a great portion of the nation's capital and materials for defense purposes. Housing production level dropped sharply and housing quality depreciated. War also caused physical and social damage to intact communities in the Suez Canal Zone which ultimately led to the evacuation of the residents and their dispensal to safer
areas of the country, which consequently led to a stepped up demand for housing in these areas.

4.6.5 Post 1973 Peace and Open Door Policy

Major impacting factors during that period were the moves towards peace and restoration of national security, the removal of stringent economic controls and the encouragement of foreign investment. Restrictions on private enterprises were lifted in practically all areas of industry and production, and foreign trade. Egyptians were allowed and even encouraged to work in the wealthy neighboring countries. On one hand, those working abroad directed part of their savings to housing and a bigger foreign community came with the new open door policy. This added to the demand for both middle and upper income housing. On the other hand, the migration or exportation of a great part of the Egyptian labor force presented a continuous drain on building labor. The resulting scarcity of labor contributed to higher wages and construction cost. The new economic policy prompted foreign and national competition for urban land which caused a dramatic increase in land prices. The price of formal housing rose sharply beyond the affordability of most of the urban population. This in turn encouraged an escalation of informal housing activity.
5.0 CHAPTER V - ASSESSMENT OF THE PRESENT SITUATION

In this chapter the housing model developed in Chapter II is applied in the assessment of the present situation. The assessment includes a review of the 1) the current environmental context, 2) the current housing situation, including the magnitude of the current problem; assessment of need and estimate of demand and the resource base, 3) the current housing process and its various functions, (4) current issues of concern and major policy directions for the resolution of the problem and 5) a concluding assessment of factors with continued or potential impact on the current situation. The whole chapter is a basis for the development of the Decision Agenda described in Chapter VII.

5.1 THE ENVIRONMENT AT PRESENT

The major features of the environment, described in Chapter III, remain considerably the same, particularly in terms of the physical and socio-cultural setting. However since the 1970s new social classes and interest groups have emerged through economic liberalization and the return of the multi-party political system. These include the upper class of large entrepreneurs and upper middle class of business men, builders, industrialists and brokers who often have close ties with international business interests based mostly in the west. This is coupled by an emerging pluralism and diversified ideological inclinations, ranging from socialism, free market capitalism, and religious fundamentalism. The militancy and violent conflicts accentuated in the late-70's and early-80's have been greatly repressed and the current emphasis is on national reconciliation coupled with policies of economic and social reform and efforts to fight corruption. President Mobarak has concentrated his focus on Egypt's awesome domestic problems including housing. The economy of Egypt is still overburdened with external debt. By mid-1980 the medium- and long-term non-military external debt amounted to about US $12.6 billion; bilateral loans accounting for 62 percent, credits from international organizations and groups accounting for 23 percent, and
supplies credits for 15 %, (Nyrop, 1983). Continued hostilities in the middle east and possibilities of their expansion present a real threat to the security and stability of the area of which Egypt is a part.

5.2 THE CURRENT HOUSING SITUATION

In order to fully comprehend the current housing situation, it is important to investigate the following:

• The magnitude and nature of the housing problem in terms of the prevalent conditions of the housing supply and the problematic symptoms they may present. These may also be viewed as substantive elements relating to the quantity and quality of the housing product.
• A realistic assessment of need and estimates of demand in relation to quality and quantity.
• An assessment of available and potential resources.

5.2.1 The Magnitude of the Current Problem

Most of the population of Egypt crowd on only 4% of its habitable land. Rural-urban migration has steadily contributed to the increased high rates of population concentration in urban areas in general and specifically in Cairo, the Delta region and Alexandria. The amount of serviced urban land within the urban areas is quite limited and consequently, most of the urban residential areas are densely populated, the land is over built and the infra-structure is overloaded, which leads to serious if not hazardous complications. Roads are congested with traffic, sewage pipes often break and inundate whole districts with effluent causing severe health problems and in some cases causing drinking water contamination. Attempts to add extra unplanned stories to existing buildings have often resulted in structural insecurity, total or partial

* A distance x that was covered by car in 15 minutes, 10 years ago (1974) may now be covered by car in 1 hour (during rush hours) despite the overpasses built by the government lately to secure traffic fluidity.
collapse, and the loss of innocent people's lives. Urban encroachment on fertile land is eroding the agriculture of the country. Most recently, the satellite coverage and aerial photography of Egypt have shown that the rate of agricultural land erosion is 40,000 acres/year.

Insufficient or lack of maintenance has led to the rapid deterioration and finally the dilapidation of many buildings. The rapidly inflating cost of new housing unmatched by the slow growth of family income has constrained residential mobility and in many cases deprived newly formed families of the right to a separate housing unit thus leading to either doubling up or migration to nearby Arab countries. Environmental deterioration is no longer a problem or a crisis but a matter of survival.* Figure 24 shows environmental pollution and deterioration in Cairo. However, there is a growing environmental awareness and concern reflected in some popular demands and government resolutions to protect the urban environment from deterioration and provide needed open space. The magnitude of the urban population who are still poorly housed and who live in very crowded conditions without proper access to water and sanitation can be counted in the millions. Since the housing census data do not enumerate the stock according to its age or condition, a number of proxy measures have been used, such as number of persons per room, number of rooms per unit, and access to infra-structure.

In Cairo alone, the government has declared 400,000 units as uninhabitable and it is estimated that 1/2 to 1 million residents of Cairo live in substandard rooftop shacks or in tomb cities with limited access to piped water, sewage, and electricity. A number of urban families endure housing conditions that are contrary to the norms or values they uphold as may be demonstrated in the case of Om Abla's family (see Appendix G, A Glimpse On The Human Dimension Of The Housing Situation). In that case two unrelated families shared one shelter unit comprised of one bedroom and a hall; the family living in the bedroom intruded on the privacy of the family living in the hall to use the common access. These two families could not afford to pay the nominal rent. Many have resorted

* This was noticed by the member of IFLA seminar held in Cairo (April 7-21) on the environmental problems of greater Cairo.
Figure 24. Disparities in the housing situation in Cairo.
to illegal subdivision of land and the construction of informal housing. Illegal subdivisions rarely comply with planning standards for street width and public open spaces. Their residents may remain for years with no utility connections, pending recognition from the government and consent to extend public utilities to those areas.

Alarming symptoms of the housing problem include high rates of population density, overcrowding, rapid deterioration, and inadequacy of the infrastructure. The following summary of findings related to these symptoms are indicative of the magnitude of the current housing problem.

**High Rates of Population Density in Urban Areas and Disparities in Population Distribution**

Urban areas in Egypt have alarmingly high rates of population density. The governorate of Cairo in 1980 had a population density of approximately 26,000 persons/km², about twice the density of New York City. Within these areas of high population concentration there are great disparities of population distribution, e.g. in Cairo, Kism Kasr El Nil has density under 7,000 persons/km² (U.S. AID, 1982). Areas of high population concentration tend to have high inflows of migrants, contain considerable proportions of "informal housing", low levels of public service and infra-structure, and generally have low living costs (United States Agency for International Development, 1982). Figure 25 shows the disparities in population distribution in Egypt.

**Overcrowding and Stressful Conditions**

Urban housing in Egypt tends to be overcrowded, registering 1.8 persons per room. According to the 1976 Housing Census, there were 3.586 million urban dwelling units in 1.5 million buildings. Approximately 3.213 million urban households occupied these dwellings at an average of 4.6 persons and 2.45 rooms per dwelling unit. The housing stock also consists of a disproportionately high percentage of one-room units amounting to 20.5% (U.S. AID, 1982). Often a family of 8 persons can

* In 1927 population density in Cairo Governorate was less than 7,000 persons/km²

Figure 25. Disparities in Population Distribution
crowd into a one room unit. In the urbanized areas of the Greater Cairo Region, the average number of persons per dwelling unit is 5.5 and persons per room is 2.0. In some districts of Cairo the increased number of persons per dwelling unit reached 6.4 while in Kasr El Nil district the number of persons per dwelling unit is only 3.8 and persons per room is 1.0, (MOHR et al., 1976). With the shortage of space, residents may tend to intensify the usage of space available inside the units by making certain alterations. For example in the popular housing, some kitchens were used as an extra sleeping space after taking the sink off, balconies and terraces were closed and used for other activities as cooking and storing and other balconies were commonly used to raise chicken, geese or ducks that are fed on the leftovers of the family meals (Rageh, 1984).

Rapid Deterioration of Housing Supply and Services

With the scarcity and increasingly higher wages of skilled labor beyond the financial ability of many households, maintenance of the current housing stock has become increasingly difficult and rapid deterioration inevitable. This is particularly true in relation to sanitary fixtures and mechanical systems.

Inadequacy of the Infra-structure

The 1976 census showed that 69.5% of the urban households had access to electricity, 29% had access to sewage and 49.05% of urban households had a pure water supply available inside the dwelling units, (Hanna, 1978). Figures 26 and 27 show the percentage of urban households and the utilities available to them which can be compared to the income distribution of households.

Deficiency in Housing Related Services and Supplementary Facilities

Examining the residential environment as a whole indicates a considerable deficiency in housing related services and supplementary facilities e.g. parking space, children's playgrounds, and self-service laundries, etc. Some observers noted that the environmental situation in Egypt has recently reached threatening dimensions.
Urban population income level and utilities condition

Percentage of urban households and utilities condition

(Upper and Upper Egypt combined based on the preliminary census results of 1976)

Figure 26. Urban Households and Utilities Conditions
Figure 2: Comparison of Type of Urban Housing Achieved to Urban Household Income Level

% of Type of urban housing achieved in 1980/1981 according to the yearly statistical book of 1982

% of urban households according to their income level. for 1982 based on MOHR et. al. Report, 1976 & Hanna's 1978 and updated by the author
Mismatches Between Supply Costs, Quality and Quantity Compared to Needs and Affordability of Households

The housing supply cost, quality and percentages of the types of housing built in past few years do not seem to match the actual variant housing needs of the urban population and household affordability. The percentage of average, above average and luxury high cost urban housing achieved has been rising steadily while the percentage of economical housing has been dropping. The prices of a condominium apartment sold in Cairo ranges from L.E. 43,500 in peripheral newly developed areas to L.E. 100,000 in prime locations such as the Nile front, Table 6, Figure 28. Rents of unfurnished housing units vary from L.E. 2 to L.E. 5/month in old buildings for one room units to over L.E. 100 in new above average units.

5.2.2 Assessment of Need and Estimates of Demand

The existence of the need for housing which is not being adequately met creates a housing problem. As mentioned earlier in Chapter II, housing need has quantitative as well as qualitative aspects that progress through various levels: survival, welfare and fulfillment. It is therefore viewed as a social measure of the difference between actual conditions and accepted standards. So far, housing need was often confused with housing demand which is an economic measure based on the ability of households to pay for acceptable accommodations. This confusion contributed to the mismatches that characterized the housing market and which were explained earlier in the chapter. In quantitative terms, the government has estimated the gross housing need to be 3.600 million units by the year 2000, (Ministry of Housing, 1979). This is based on projections of population growth, Figure 29.

<table>
<thead>
<tr>
<th>Million Units</th>
<th></th>
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<tr>
<td>Population Growth</td>
<td>2.196</td>
</tr>
<tr>
<td>Replacement</td>
<td>0.576</td>
</tr>
<tr>
<td>Upgrading and homeless</td>
<td>0.828</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3.600</td>
</tr>
</tbody>
</table>
Table 6 Current Disparity in Housing Prices As Demonstrated in Greater Cairo Region (based on participant observation and interviews in 1983)

<table>
<thead>
<tr>
<th>Location of the unit within the region</th>
<th>Estimated current selling price of the unit - area varying from 45 to 200 m²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prime Locations</strong></td>
<td></td>
</tr>
<tr>
<td>e.g. central business district</td>
<td></td>
</tr>
<tr>
<td>Nile frontage</td>
<td>L.E. 300,000 (140 m²)</td>
</tr>
<tr>
<td>Prime districts</td>
<td>L.E. 100,000 (150 m²)</td>
</tr>
<tr>
<td><strong>Upper and middle income districts</strong></td>
<td></td>
</tr>
<tr>
<td>e.g. Dokki, Mohandesin, etc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>L.E. 70,000 (190 m²)</td>
</tr>
<tr>
<td></td>
<td>L.E. 60,000</td>
</tr>
<tr>
<td></td>
<td>L.E. 50,000 (100 m²)</td>
</tr>
<tr>
<td><strong>Suburbs and areas developed in the 60s or 70s</strong></td>
<td></td>
</tr>
<tr>
<td>e.g. Nassr City</td>
<td></td>
</tr>
<tr>
<td>Mokkatam City</td>
<td>L.E. 45,000 (130 m²)</td>
</tr>
<tr>
<td>Maadi</td>
<td>L.E. 40,000 (120 m²)</td>
</tr>
<tr>
<td>Pyramids area</td>
<td>L.E. 30,000</td>
</tr>
<tr>
<td></td>
<td>L.E. 25,000 (90 m²)</td>
</tr>
<tr>
<td><strong>Newly developing communities</strong></td>
<td></td>
</tr>
<tr>
<td>El Bassatin</td>
<td>L.E. 35,000</td>
</tr>
<tr>
<td>15th of May City</td>
<td>L.E. 18,000</td>
</tr>
<tr>
<td></td>
<td>L.E. 5,000 (70 m²)</td>
</tr>
<tr>
<td></td>
<td>L.E. 3,500 (45 m²)</td>
</tr>
</tbody>
</table>
Figure 28 Estimated current selling price for condominiums in the Greater Cairo Region.
### Population in millions

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual growth</th>
<th>Expected growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>66.2</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>65.0</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>55.0</td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>45.0</td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>40.0</td>
<td></td>
</tr>
<tr>
<td>1967</td>
<td>30.9</td>
<td></td>
</tr>
<tr>
<td>1937</td>
<td>15.9</td>
<td></td>
</tr>
<tr>
<td>1907</td>
<td>11.1</td>
<td></td>
</tr>
<tr>
<td>1900</td>
<td>9.7</td>
<td></td>
</tr>
<tr>
<td>1900</td>
<td>5.0</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 29** Population Growth (based on 'Egypt Facts and Figures' 1984 and the 1979 National Housing policy proposal)
At present some research is underway to determine design norms for limited income people. The purpose is to set standards and select adequate building systems and finishing materials rather than use these norms and standards to assess needs.

5.2.3 The Resource Base

As mentioned earlier in Chapter II, the resource base for housing includes: land, finance, material resources, human and technological resources. Vacant land available inside the urban areas of the Nile Valley is quite limited. In Cairo, much of the desert land adjacent to urban areas is controlled by the armed forces which, in the view of some scholars, impedes or obstructs urban expansion in these areas. Despite legislation penalizing encroachment on agricultural land, urban expansion continues to erode the fertile valley north and south of Cairo and in major cities in the Delta. Built up urban land is also recycled to support vertical expansion. Thus low rise buildings are often demolished and replaced by towers.

Financial resources include government allocations for housing, utilities, and building materials, private sector funds and individual savings as well as international loans and assistance. Government estimation and comparison of housing and infrastructure needs to local resources reveal a persistent deficit that is expected to gradually decrease by the end of the century, Table 7.

With regard to building materials, the government is considerably expanding related industries and encouraging the private sector to invest in such industries. The traditional use of red brick is gradually being phased out: red brick factories were given a definite transitional period beyond which the manufacture of these bricks will be banned. The manufacturers are being encouraged and technically assisted, by the government, to turn to other types such as sand brick, with much of the heavy equipment, iron, steel and cement needed being imported from other countries. Such importation becomes dependent upon the availability of hard currency and the central government's economic policies.
Table 7  Total Needs, Resources and Deficits  
(1979 National Housing Policy Proposal)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Housing and</td>
<td>1455</td>
<td>1500</td>
<td>1466</td>
<td>1419</td>
<td>1508</td>
<td>7348</td>
</tr>
<tr>
<td>Infrastructure Needs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Local Resources</td>
<td>412</td>
<td>513</td>
<td>634</td>
<td>778</td>
<td>949</td>
<td>3286</td>
</tr>
<tr>
<td>Deficit</td>
<td>1043</td>
<td>987</td>
<td>832</td>
<td>641</td>
<td>559</td>
<td>4062</td>
</tr>
<tr>
<td>% of Deficit to Need</td>
<td>71.7%</td>
<td>65.8%</td>
<td>56.8%</td>
<td>45%</td>
<td>37%</td>
<td>55.3%</td>
</tr>
</tbody>
</table>

Note: The needs and resources figures represent millions of Egyptian pounds.

Manufacturers are being encouraged and technically assisted, by the government, to turn to other types such as sand brick, with much of the heavy equipment, iron, steel and cement needed being imported from other countries. Such importation becomes dependent upon the availability of hard currency and the central government's economic policies.

Still, a great portion of the labor force is employed outside of Egypt, causing shortages, especially in skilled labor, and a continued rise in wages. However, training programs and technical assistance is provided by the government to make up for the shortage. Much of the construction boom in neighboring countries is coming to an end and the return of Egyptian builders and technicians seems evident.
5.3 THE CURRENT HOUSING PROCESS

5.3.1 Strategic Planning

The central government still retains the leading role in strategic planning, legislation and development of housing policies and programs. The current posture is based on the 1979 national housing strategy which has the main goal of meeting housing demands and providing for all those who need it based on an estimation of housing shortage. The main features of the strategy include:

- Working towards lowering the cost of housing construction.
- Encouraging the addition of one or more stories to existing buildings if structurally fit.
- Establishing integral housing conglomerations for low and moderate income families in areas near the existing housing bulk served by or near essential utilities using cost saving standard units and models.
- Preparing new building sites in desert areas where it is easy and less costly to extend pure water and electricity and partial paving.
- Encouraging the manufacture and use of standard furniture to fit limited area housing models for the ideal benefit of families, possibly through furnishing cooperatives.
- Monitoring programs for the support and establishment of building material industries until production reaches the required level.
- Meeting the most urgent needs of those whose housing has collapsed and newly formed families.
- Winning the trust of the private sector and encouraging its participation in solving the housing problem by removing all the obstacles.
- Providing required/needed labor.

The government also provides estimates for percentages of four housing categories. The estimates are supposedly based on a survey of building licenses. The main determinant in the categorization is the cost of the housing unit as indicated by the size of the unit, finishing level and fixtures. Accordingly the government specifies area limits for units
in these categories. Economic housing was estimated to be 55% of the total housing units, medium or moderate level housing to be 37%, above average housing to be 6% and luxury housing to be 2% of the total housing units. The area of the unit in economical housing and part of the moderate housing is designated to be 45, 50 and 70 square meters.

With Cairo, reaching its ultimate area size in the late seventies, the government adopted the satellite towns system to meet the demands of the growing number of inhabitants. Emphasis on the development of satellite towns for future urban expansion in desert areas has become an important part of the national strategy. These towns are planned to attract both population and industries.

5.3.2 Legislation

In terms of legislation, the 1981 Housing Law Number 136 is still in effect. Central value is determined according to the price of land and buildings so that the owner gets back the price he paid on the land and buildings through a 40 year period (assumed life of the building) in addition to an 8% annual return of this value, 3% of the value of the land plus 5% of the value of the building (El Zoghby, July, 1983). The law also specifies that at least two-thirds of the area of the building, composed of more than one unit, must be designated for rent and that only one-third of the area can be for sale or lease as furnished units. However, potential condominium buyers manage to form what is called owners' unions or associations which are registered before obtaining the building license. Eventually the whole area of the building may be for sale with no units for rent which in a way evades restrictions imposed by the 1981 law. The law also exempts all buildings from basic and additional taxes, with the exception of luxury-type housing. The law specifies that two thirds of the 15% of the profits of public sector companies allocated for services, should be used to finance needed housing units for workers in every company or group of adjacent companies. Anything which remains in excess, goes to a special fund to finance economic housing in each governorate. According to this law, the state should guarantee the sup-

The Egyptian building code has long been established to guarantee the health and safety of occupants. The code determines set backs, heights of buildings in relation to street widths, minimum area and dimensions of light wells in relation to the height of buildings, percentage of opening in relation to room areas, staircase dimensions and slope, minimum ceiling heights and widths of various spaces. In some areas land use regulations determine the maximum percentage of building coverage on designated lots and type of uses allowed. However, mixed land use is the predominant pattern in older urban areas. In some suburbs and new communities segregation of land uses is more evident.

5.3.3 Policy Planning and Programming

Emergency Housing

In recent years, emergency housing came into existence. Since the city of Cairo's authority issued 150,000 orders of evacuation to households who are living in old buildings likely to collapse, temporary housing units were built by the City of Cairo to house these people in two or three areas. Some are built of wood panels and others have concrete walls and floors. These buildings are not much different from permanent low-cost housing, formal or informal. People live there for free and they seem to stay in their units on a permanent base. The Ministry of Housing now is conducting experiments in constructing emergency housing units in a short time at a minimum cost. Parabolic barracks of metal sheets subdivided internally into dwelling units are under trial (Rageh, 1984).
New Communities

The first generation of the new towns were named the 10th of Ramadan and the 15th of May. The second generation are the sixth of October, El-Obour, El-Amal and Badr see Figure 30. The town of 15th of May is close to the industrial center of Helwan area, also El-Obour is located close to the industrial center of Shoubra El-Kheima.

These two towns can attract both laborers and other employees working in nearby industries. There is a great potential for 6th of October to attract industry and tourism, and the number of lots already reserved by industrial companies is 169. Fifteen factories are now under construction and four factories are now in operation. The first phase of each of 6th of October and 15th of May is now under construction, but El-Obour, El-Amal and Badr are still in the planning stage. The 15th of May town is now occupied and the number of its present inhabitants is estimated to be 30,000, (Rageh, 1984).

Housing provided by the government in the new communities varies from core housing to two-story villas. In the 15th of May new city, housing units provided by the government are sold for prices ranging from L.E. 3,500 to 35,000 depending on the size and designated economic level of the neighborhood, Figures 31 and 32. Those eligible for these units can get a L. E. 9000 loan to be repaid by installments over a 30 year period. Eligibility and priority is to newly married couples, displaced families, families transferred from other cities (on condition that they leave their original unit) and 5% emergency cases determined by the Minister of Housing or the Governor of Cairo.

The government also provided schools, shopping facilities, mosques and recreational open spaces within the new communities, Figure 33.

As mentioned earlier in Chapter IV, the government has scheduled selling prices so as to provide incentives for early settlers. For example, the selling schedule for the 10th of Ramadan is as follows:

1. At the first stage of the project, land was sold for 7LE/M², a price that was considerably less than the actual cost.
Figure 30 New towns and urban development plans around the crowded capital, Cairo.
Figure 31. Housing in the 15th of May New Town
Newly married housing unit plan

- Housing arrangement, an unfortunate example of insensitivity to actual family needs.
- Newly married couple.
- Space assumed to be used for both sleeping and living.
- Sanitary core.
- Access

Figure 32 Newly married housing units, 15th of May, New Town.
A primary school in an upper income neighborhood.

Vast open space to be designed as a town park.

Figure 33. A School and Town in the 15th Of May New Town
2. At the second stage the land was sold for a little less than the actual cost.
3. In the third stage it is to be sold for the actual cost.
4. In the fourth stage it is to be sold for more than the actual cost to make up for the loss. (Nor El Din, July, 1983).

**Financing**

Among the government efforts to facilitate housing finance, is the provision of relatively low interest loans which amounted to 500 million Egyptian pounds in 1982. Funds for these loans were from housing bonds and vacant land taxes. Housing bonds are low interest loans to the state to be invested by the state in economical housing. The vacant land tax is 2% of the value of the registered value of land, to be re-evaluated every 5 years (according to the 1980 law), the yield for these taxes goes to the Housing and Reconstruction Bank. In 1982 the government loaned 500 million LE through the housing and reconstruction Bank. (El Zoghby, July 1983).

As an inducement to the formation of housing cooperatives, the General Authority of Housing and Building Cooperatives (GAHBC) established in 1971, obtains financing from commercial banks at prevailing market rates of interest to relend them to housing cooperatives at a reduced rate. The difference is absorbed by the government budget as an interest rate subsidy. (Arab Republic of Egypt Greater Cairo Sector Memorandum, World Bank, 1983). Housing cooperatives are encouraged to be formed by individual members. Major sources of financing for housing cooperatives are savings from members and government allocations. In the fiscal year 1983 - 1984 government financing reached LE 150 Millions. Financing is provided at 5% interest for 15 years to cooperative groups and 6% interest for individuals. Planning and design of the units are left to cooperative societies but they have to meet GAHBCs norms and standards. The GAHBC also supervises construction and keeps a reasonable control over the societies to secure the interest of their members. Units that exceed 90 square meters are deprived from benefiting from the facilitated loans offered by the general organization of Housing cooperatives which was established in 1971. The increase in cooperative housing in later years
has resulted from government policy to channel large investment in housing through the Organization, (Rageh, 1984).

Facilitated loans are also being provided to individuals who want to complete, expand or increase the heights of their buildings or invest, provided the investment is not in luxury housing. (Ambar, 1981). Informally, several financing mechanisms have been devised to make building activity affordable for families with limited means. The bulk of the financing is through personal savings. Informal saving cooperatives (gamiyas) are a prevalent means of savings for families at all income levels, but tend to be even more widespread among lower income families. Membership in these gamiyas is on a highly selective basis. Each member is entitled to receive the full amount pooled by the group on a monthly rotating basis after contributing a specific sum each month. Generally, these gamiyas are not formed for the sole purpose of meeting the housing finance needs of their members (World Bank, 1983).

There are also joint international cooperation projects with the USA, France, Britain, Japan, Germany, Italy, Austria, and the European common market who give either grants or loans for housing and infrastructure projects. Most of these loans and grants have special conditions attached such as specifying that equipment must be bought from the country or agency giving the grant or loan. (El Zoghby, July, 1983).

5.3.4 Environmental Planning and Design

Designs for formal urban housing are done mostly through architectural firms or private offices. The Ministry of housing is responsible for preparing and selecting designs for housing built by the public sector in either old or new communities. Research is encouraged and technical assistance sought by the government to develop economically efficient housing designs and building systems. The bulk of informal housing contractors and sometimes the owners produce their own designs. The Urban Planning Organization is responsible for the preparation of city master plans. However, there has been no effective legal machine to implement these plans, and there are no requirements for civic participation in the development and support of those plans.
5.3.5 Production and Marketing

A great number of the units are produced and marketed by the public sector particularly in the new communities and reconstructed areas. Certain priorities and standards for eligibility to rent or purchase these units are set by the public authority in charge. Another portion of units is designed, produced and marketed through housing cooperatives, many of which are affiliated with professional syndicates. A limited portion is produced and marketed by investment and development companies some of which are linked to commercial banks. Some formal housing units are produced and marketed through individual private sector initiative so is the great bulk of informal housing. Real estate brokers engage in land transactions, sale of condominiums, leasing of furnished apartments and leasing the diminishing supply of rental units.

5.3.6 Consumption, Management and Maintenance

The housing supply is very poorly managed. Landlords merely collect rents via porters or lawyers. Maintenance is almost non-existent which indicates a major weakness in the housing process and eventually leads to the rapid deterioration and dilapidation of housing. With consecutive rent reductions, the shortage of skilled labor and increase in wages, landlords gradually refrained from fulfilling their maintenance obligations and tenants have found difficulty taking on the responsibility themselves. However, more recently, a few tenants have organized themselves, elected a maintenance and management committee and pay a small monthly fee as a contribution for general maintenance and cleaning purposes. Some local societies have sought cooperation from district residents to promote more sanitary garbage disposal and collection, turning left over open spaces into children's play grounds, or simply promoting general cleanliness.
5.3.7 Renewal and Upgrading

Renewal and upgrading are mostly left to individual private initiative and involve interiors of housing units. There is no massive effort or no specific programs directed towards renewal and upgrading of housing. However, efforts are made by the government to renew and upgrade the infra-structure. Plans for slum clearance are not effective because of popular resistance and the difficulty in the relocation of the residents. Local authorities often order the evaluation and demolition of buildings designated liable for collapse. Emergency housing provides shelter for impacted residents.

5.4 CURRENT ISSUES OF CONCERN AND MAJOR POLICY DIRECTIONS FOR THE RESOLUTION OF THE PROBLEM

The housing problem in Egypt is a concern of the central government and its agencies, citizen groups and popular organizations and also to certain international bodies such as the U.S.A.I.D. (United States Agency for International Development) and the World Bank. The problem continues to be studied and discussed by those concerned through professional team investigations, professional and public seminars and conferences and through the mass media. Through a scan of major reports, issues of concern and major policy directions were identified as follows.

5.4.1 Issues of Concern

1. Availability of housing
   The concern is for increasing housing production and stimulating investment in housing to counter the existing housing deficit and meet the demand for additional units. The concern is for coping with the especially high rate of population increase and household formation and increased rural-urban migration.

2. Affordability
   The cost of housing including land, labor and materials has escalated beyond the affordability of the majority of the people or households
to afford it. In the past twenty years, average household income has only doubled or tripled while the average dwelling unit costs have multiplied ten fold (Socialist Labor Party, 1982).

3. **Scarcity of financial and material resources**
   The general economic condition in Egypt is extremely critical. The country is faced with an enormous external financial debt, the value of the Egyptian pound is diminishing, building materials available are insufficient to meet housing needs especially with competition from other construction such as offices, hotels and bridges, scarcity of vacant serviced urban land and diminished skilled labor with migration to other countries. All these factors raise the issue of how to expand the resource base and limit or control demand on it.

4. **Responsibility**
   The issue of responsibility relates to the role of the various actors in alleviating the problem and meeting the demand. The debate is whether the burden lies on the central government and public sector or on the private sector investors, developers and contractors or should the burden be shared by all those concerned. Whose responsibility is it to maintain the available stock and upgrade it?

5. **Unequitable and inefficient use of resources**
   Among the issues raised is the unequitable and inefficient use of government funds. For example, the owner of a hundred thousand pound condominium or a three million pound building and the owner of a three thousand pound home pays the same negligible fee to benefit from the state sanitary disposal system which costs the government thousands of millions of pounds (S.L.P., 1982).

6. **Structural safety**
   In the past year several buildings have collapsed with tragic results. Collapses were either due to dilapidation of older buildings or corrupt practices and noncompliance with building codes and regulations whether in new construction or additions and alternatives of older buildings. This has caused great alarm to the whole nation and serious investigations are underway to avoid future failures.

7. **Environmental Quality**
With dilapidation, overcrowding, increased air pollution, higher incidence of water contamination, and repeated failures in the infrastructure causing severe health problems and hazardous conditions, the Egyptian public as well as the government have become more aware of the need to protect and upgrade the environment. Most recently, an Institute for Environmental Studies has been established in affiliation with Ainshams University. More research and organized community and professional efforts are being channeled to avoid rapid deterioration and promote the overall quality of the environment. Some of those involved in such efforts call for the development of an effective urban planning process that aims beyond the provision of basic needs to the fulfillment of a more inclusive and healthy urban living.

5.4.2 Major Policy Directions for the Resolution of the Problem

The various proposals for the resolution of the problem reflect varying perceptions of the housing problem in Egypt and its causes as well as varying conceptions of the housing process that may relate to or stem from varying ideological inclinations. Major policy directions evident in the proposals range from heavier central government involvement and control to lifting all government controls, complete freedom of the housing market and reliance on the private sector and the supply and demand free market economy. The following is a review of the three major policy directions. Figure 34 provides a short comparison of these directions.

Policies Advocating Central Government Control

Advocates of these policies perceive the housing problem to be an unbalanced unequitable distribution of limited resources accentuated by excessive profits and rapid returns sought by the private sector. For example, Dr. Milad Hanna, an Egyptian Structural Consultant, recently appointed by the president of Egypt to the People's Assembly, has been advocating the 'redistribution of the national wealth of houses'. His approach can be summed up as follows:
<table>
<thead>
<tr>
<th>Range of alternative general trend</th>
<th>Perception of the problem and its root causes</th>
<th>Conception of the housing process</th>
<th>Plan const- Manage</th>
<th>Proposals for solution of the problem (main directions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extreme freedom of the market (F.M.)</td>
<td>Unequitable distribution of resources.</td>
<td></td>
<td></td>
<td>Fostering management and maintenance and maintenance skills and systems.</td>
</tr>
<tr>
<td></td>
<td>Unequitable distribution of costs and benefits.</td>
<td></td>
<td></td>
<td>Legislative reforms.</td>
</tr>
<tr>
<td></td>
<td>Excessive government regulation.</td>
<td></td>
<td></td>
<td>Definition and promotion of public interest.</td>
</tr>
<tr>
<td></td>
<td>Lack of coordination and insufficient cooperation among various actors in the process and housing related agencies.</td>
<td></td>
<td></td>
<td>Coordination and integration of housing related policies.</td>
</tr>
<tr>
<td></td>
<td>Ambiguity in the definition of public interest.</td>
<td></td>
<td></td>
<td>Revision and simplification of procedural requirements such as building license issuance.</td>
</tr>
<tr>
<td></td>
<td>Insufficient citizen participation in the formulation of policy and designation of limits.</td>
<td></td>
<td></td>
<td>Freeing the market of government restrictions to allow the operation of supply and demand natural laws and restore equilibrium to the market.</td>
</tr>
<tr>
<td></td>
<td>Undue government intervention and over restrictive policies.</td>
<td></td>
<td></td>
<td>Discontinuing government subsidies.</td>
</tr>
</tbody>
</table>

Figure 34. Descriptive Analysis of Key Trends
Nearly the whole world had experienced the adoption of the 'ration system' during the war times, to ensure a fair share to everybody for the minimum amount of the essentials. Similarly, the coming world crisis of housing could only be faced by looking at the available stock of the existing housing units, as a common national wealth, to be most effectively used by those who need it more than those who can pay for it. (Hanna, 1977, p. 193)

Hanna also believes that the private sector was happy with the shortage of houses and is keen to see that the scarcity of houses should continue, so that it made more and more profits.

The socialist labor party also sees that the real housing problem lies in economic and average type housing which are required by limited and average income people because most of the private sector and investment companies direct their resources and efforts to build luxury type and above average housing and offices. The party sees that the great discrepancy in income levels resulting from an imbalance of the economic and social structure has contributed to the problem and allowed opportunists to acquire illegal profit at the expense of the majority of the people (S.L.P., 1982).

Examples of the policies advocated along this trend are:

1. Tenants registration and optimization of the use of the existing housing units through the rationing of houses to those who need them most. (Hanna, 1977).

2. Decreasing the area of the dwelling units to build more units with the available resources thus inducing birth control and limiting the number of children per family to suit the limited space available. Increasing common services and facilities in the neighborhood to make up for the loss of space in the home. For example, having common washrooms, libraries, storage space, nurseries, and play grounds. (Hanna, 1977).

3. Helping the youth to develop realistic aspirations and conceptions of the modern home and accept the developments forced by contemporary conditions of society. (S.L.P., 1982). In other words, this means curbing the users' aspirations and limiting their ambitions.

4. Limiting the size of household units according to the economic status of the household, i.e., upper income households would have the privilege of larger units while lower income families would be confined
to smaller units and are entitled to less space. (MOHR, 1979 and Padco, 1982).

5. Reducing intra-urban infra-structure costs through a modification of standards, i.e., lowering standards to reduce per capita cost. (PADCO, 1982).

6. Increasing cost recovery by the public sector from the users of housing and services provided by the State and searching for additional revenues other than the present allocations for housing. For example, placing an ascending fee on connection to the sanitary disposal system so that the fee is related to the value of housing or building serviced. (S.L.P., 1982, and USAID, 1982).

7. The commitment of the central government through its various institutional agencies, local governments, public sector companies, to construct economic and average housing while subsidizing the prices of the units to suit each income level.

8. Putting at least a three year hold or moratorium on license for luxury housing and office buildings. When building resumes, allowing only 2% of all licenses for these classifications as designated by law. (S.L.P., 1982).

9. Obliging companies and individuals engaged in luxury buildings construction to designate 20% of the value of the luxury building to build economic housing on land freely granted by the State. (S.L.P., 1982).

10. Raising the considerably lower rents of older housing units and using the difference in rents to subsidize newly built housing to render it more affordable. (Hanna, 1977).

Policies Advocating a Freer Market and Removal of Central Government Control

Advocates of these policies perceive that the housing problem in Egypt stems from the intervention of the central government in the housing process, for example through the consecutive rent reduction and the rent control laws which discouraged the private sector to invest in the production of new housing or in maintenance of the existing housing stock, would eventually lead to the dwindling of the housing supply and the rise
in prices. Free market advocates believe that the remedy of the current situation lies in the removal of all government regulations restricting free market operation. Recommendations include:

1. Removing rent control regulations.
2. Removing restrictions on the private sectors importation of building materials and accessories.
3. Lifting price control over building materials.
4. Discontinuing government subsidies.
5. Removing any restrictions or regulations related to the sale of condominiums.

Policies Advocating the Integration of Private and Public Roles

Advocates of these policies perceive that both the private sector practices and public sector procedures and excessive regulations contributed to the accentuation of the problem and that both should share the responsibility of resolving the problem. They see that investment of resources is more than just financial investment and that housing as a process is related to social behavior. "People are the real financiers of housing construction and not contractors. Contractors are just mediators. Therefore, the ability of the various groups to contribute to the housing 'process', has to be studied."

Among the policies proposed along this general direction of thought are:

1. Encouragement of cooperative or popular housing with government support through loans and subsidies.
2. Planned urban expansion into the desert, public sub-division of newly developed land leasing or sale of such land to individuals cooperatives and popular organizations to build housing.
3. Upgrading and development of rural areas to deflect migration away from the overcrowded cities.

'(Dr. Ismail Sabry Abdullah, ex-Minister of Planning, in the Housing Seminar organized by MOHR in June 1983 - as quoted in Al-Ahram newspaper, June 21, 1983, p. 3)
5. Giving due consideration to aesthetic and cultural values and heritage preservation. (Al-Ahram, 1983).
6. The development of an effective urban planning process that would promote quality living that goes beyond the fulfillment of basic needs, (Rageh, 1984).
7. Public provision of technical support and training to make up for the loss of a considerable portion of the labor force through migration to neighboring countries.
8. Expansion of the building material industries to catch up with the increasing demand.
9. Legislative reforms encouraging investment in housing.

5.5 CONCLUSION: IMPACTING FACTORS

Factors that seem to continue to impact on the urban housing situation are (1) the continued urban growth due to rural-urban migration, (2) the constrained financial situation, and (3) growing pluralism and diverse ideological trends. Potential impacting factors are: (4) the return of the labor force employed in neighboring countries due to economic fluctuations and budget cuts in these countries, (5) potential spread of hostilities in the middle east, (6) ideological and socioeconomic policies and the housing process, and (7) increased participation or activism of community organizations, professional and special interest groups in urban planning and environmental protection.
6.0 CHAPTER VI - SUMMARY ANALYSIS AND IDENTIFICATION OF CRITICAL FACTORS

This chapter provides a summary of the analysis of the Egyptian urban housing situation and an assessment of impacting factors to identify which of them are critical and warrant consideration in the Decision Agenda. The summary analysis should provide participants in the decision making process with a concise holistic picture of the situation and serve as a background for the Decision Agenda.

6.1 ASSESSMENT OF IMPACTING FACTORS

Through the reconnaissance of the environment, the historic analysis and the assessment of the present situation, twenty six impacting factors were identified. A number of those factors have impacted in the past years, others impact on the present situation and may be likely to continue in the future. Other potential factors may emerge in time and impact on the situation. To facilitate further analysis, the twenty-six impacting factors were grouped in six major clusters, according to their common nature. Only one factor, rural-urban migration appeared in two clusters due to its socioeconomic and demographic nature.

An attempt was made to assess the clusters of factors in terms of their impact on the subvariables in the situation, their relationship to criteria of effectiveness of housing strategies, and their potential for policy intervention. The assessment was carried out systematically using the Impacting Factor Analysis and Evaluation Sheet, Figure 18, developed in this research and presented earlier in Chapter III as a guide and means of focus for the analysis. Information on the Egyptian housing experience over the past three decades provided the basis for informed judgment as to the relevant significance of those factors.

Tables 8-1 through 8-II provide a list of the impacting factors in each of the 6 clusters, the methodological procedure by which each was identified, the rating of factors in the cluster which corresponds to the S score, the effect of the impact whether helping or hindering and potential for policy intervention by housing policy makers. The factors
in each cluster have various ratings; their average is considered the rating for the cluster as whole. The clusters are presented in order of significance; the ones with the highest rating first. Factor clusters that have a score exceeding 6.00 are considered critical. Factor clusters scoring over 8.00 are considered not only critical but also determining. A critical factor is a factor in the situation that is crucial to the choice of the appropriate and effective strategy. A determining factor is a critical factor that is most powerful in determining the direction and state of the housing process or the success of failure of public goals and strategies.

Based on the assessment, all factors in the six clusters were found critical and factors in two clusters were also found to be determining. The following is a brief summary of the assessment.

1. SOCIOECONOMIC FORCES AND CHANGE (Table 8-1)

Throughout the reconnaissance of the environment, the historic analysis, and the situational assessment, socioeconomic forces and change proved to be a determining factor in the housing situation. Its effect is accentuated with its relationship to both the rural and urban national environment as well as the global situation. For example the labor drain, labor influx, inflation and depreciation of monetary value all relate to the international situation as much as to the national situation. Economic changes may have a hindering or helping effect on the progression of housing strategies. Their effect may be indirectly controllable through sound structuring of the process with built in resilience and viability for future contingencies. All the factors in this cluster warrant consideration in the Decision Agenda.

2. SOCIO-POLITICAL AND IDEOLOGICAL FORCES AND CHANGE (Table 8-II)

The reconnaissance of the environment, the historic analysis and the assessment of the present situation proved that socio-political and ideological forces and change have had and continued to have a
critical if not determining impact on the housing situation (refer back to Chapters II, IV, and V). This is particularly evident with the redistributional policies brought about with the 1952 revolution and the 1962 socialistic transformation. The post 1973 shift in the general policy direction, the growing pluralism, democratization and less constrained political environment have had a dramatic impact on the housing situation, especially with the economic changes it induced. This factor relates directly or indirectly with the five criteria of effectiveness of housing strategies. Like war, it is a factor that may not be directly controlled, but a built in resilience within the housing process may indirectly control its impacts on the process. These factors were helpful in some respects and hindering in others.

3. EXOGENOUS EVENTS (Table 8-III)

Through the reconnaissance of the environment and historic analysis, war proved to have a critical impact on the housing process. During World War II, the flow of building materials import was interrupted, much of the labor force was militarily recruited and the cost and price of housing were affected. This in turn, triggered a change in the housing process mainly in the legislative function. The 1967 and 1973 Arab-Israeli Wars had a critical impact on the overall resource base, the interactive subsystems, the principal actors, the housing process with its planning, legislative, and implementation functions, housing suppliers, products and most of all the users who were displaced from the canal zone and whose housing was destroyed. Present hostilities in Lebanon and between Iraq and Iran could continue and spread which constitutes a potential threat for security in the area and which in turn could affect the housing process in the future. While this factor does not seem to be directly controllable, a housing process with built in resilience may indirectly control the impact.
4. TECHNOLOGICAL CHANGE  (Table 8-IV)

Technological change such as advancements in the building and construction systems as well as in the use of building materials did have an impact on the speed of construction, rate of housing production and possibilities of vertical expansion. It therefore had an impact on materials, equipment, the amount and skill of labor needed, the cost, quality, quantity, and price of housing which in turn have an impact on the users' needs, demands, norms, affordability, and overall satisfaction. New developments in household equipment and air-conditioning systems also may create new demands and modify user norms. Advancements in fire alarm systems may affect housing legislation which in turn could affect suppliers, producers, and users. Technological change, when properly directed, can have a most critical and helping impact on the housing process and situation as a whole.

5. DEMOGRAPHIC FORCES AND CHANGE  (Table 8-V)

Demographic forces and change such as: rural-urban migration, natural growth in urban population and distributional disparities have continued to impact on the housing situation, stepping up the demand for housing in urban areas. This in turn exacerbated the housing deficit, raised prices, increased congestion, speeded up deterioration and lowered housing quality in many areas. It is definitely a critical factor in the development of effective housing strategies and the overall national development plan. Provisions promoting better distribution of the population on the vast habitable land, beyond the limits of the Nile Valley as well as promoting the resourcefulness of the users, may change the impact of this factor from a hindering to a helping force in the process.
6. NATURAL PHYSIOGRAPHY AND ENVIRONMENTAL SETTING (Table 8-VI)

The natural physiography and environmental setting have had a critical impact on the national population distribution pattern in terms of major concentrations and shifts, mainly the urban pull as opposed to the rural push. This in turn had an impact on the urban housing situation. Stepped up demand in urban areas and the resulting responses or practices within the housing process had, in turn an impact on the environmental setting. As an example, urban encroachment has eroded the fertile agricultural base. This indicates a two-way interaction between the housing process and the environmental setting. The factor may be directly controllable by policy intervention.
<table>
<thead>
<tr>
<th>STATEMENT OF FACTOR</th>
<th>METHODOLOGICAL PROCEDURES OF IDENTIFICATION</th>
<th>RATING AND SIGNIFICANCE</th>
<th>EFFECT OF IMPACT</th>
<th>POTENTIAL FOR POLICY INTERVENTION</th>
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<tbody>
<tr>
<td>Socio-Economic Forces and Change</td>
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<tr>
<td>- Rural urban migration</td>
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<tr>
<td>- Potential influx of labor</td>
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<td>- Government gaining control over capital</td>
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<tr>
<td>- Private special interest gaining control over capital</td>
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<td>*</td>
<td>3.2</td>
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<tr>
<td>- Financial constraints</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>3.2</td>
</tr>
<tr>
<td>- Industrial development</td>
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<td>3.7</td>
</tr>
<tr>
<td>- Economic expansion</td>
<td>*</td>
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<tr>
<td>- Fluctuations or interruption of revenue from the Suez Canal</td>
<td>*</td>
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<td>*</td>
<td>3.7</td>
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<tr>
<td>- General rate of inflation</td>
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<tr>
<td>AVERAGE RATING OF CLUSTER</td>
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Significance of Impact Nonsignificant Minor Strong Critical Determining R = Impact on Subvariables

points score 0 -- 1 -- 3 -- 5 -- 7 -- 9 R' = Relatedness to criteria of effectiveness
S = Overall score
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<th>RATING AND SIGNIFICANCE</th>
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<th>POTENTIAL FOR POLICY INTERVENTION</th>
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</thead>
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<td>*</td>
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<tr>
<td>- 1952 Revolution and reform movement</td>
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<td>- 1962 socialist reformation</td>
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<tr>
<td>- Pluralism and diverse ideological and political trends</td>
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<td>3.1 5 8.1</td>
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**AVERAGE RATING OF CLUSTER**

8.1

Significance of Impact: Nonsignificant, Minor, Strong, Critical, Determining

R = Impact on Subvariables

points score: 0 - - - - 1 - - - - 3 - - - - 5 - - - - 7 - - - - 9

R' = Relatedness to criteria of effectiveness

S = Overall score
Table (8-III) SUMMARY OF ANALYSIS & IDENTIFICATION OF IMPACTING FACTORS FROM SHEETS A & B

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<th>STATEMENT OF FACTOR</th>
<th>METHODOLOGICAL PROCEDURES OF IDENTIFICATION</th>
<th>RATING AND SIGNIFICANCE</th>
<th>EFFECT OF IMPACT</th>
<th>POTENTIAL FOR POLICY INTERVENTION</th>
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<td>- 1956 Triple Agression on Egypt</td>
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<tr>
<td>- Yemen War</td>
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<tr>
<td>- 1967 Arab-Israeli War</td>
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<td>*</td>
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<tr>
<td>- 1973 Arab-Israeli War</td>
<td></td>
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<td>*</td>
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<tr>
<td>- Present hostilities in the Middle-East</td>
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<td>AVERAGE RATING OF CLUSTER</td>
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Significance of Impact: Nonsignificant, Minor, Strong, Critical, Determining. 
R = Impact on Subvariables. 
R' = Relatedness to criteria of effectiveness. 
S = Overall score. 

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### Table (8-IV)

**SUMMARY OF ANALYSIS & IDENTIFICATION OF IMPACTING FACTORS FROM SHEETS A & B**

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<th>EFFECT OF IMPACT</th>
<th>POTENTIAL FOR POLICY INTERVENTION</th>
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<tr>
<td>and construction systems</td>
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<tr>
<td>- Developments in the use of</td>
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<tr>
<td>building materials</td>
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**AVERAGE RATING OF CLUSTER**

|                                           |                                             |                         |                  | 7.5    |  |   |         |           |                 |            |          |

**Significance of Impact**
- Nonsignificant
- Minor
- Strong
- Critical
- Determining

**R** = Impact on Subvariables

**R'** = Relatedness to criteria of effectivesness

**S** = Overall score

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*Note: The table data is extracted from the provided image.*
## Table (8-V)  
**SUMMARY OF ANALYSIS & IDENTIFICATION OF IMPACTING FACTORS FROM SHEETS A & B**

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<tr>
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<td>- Rural-urban migration</td>
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<td>*</td>
<td>3.4</td>
<td>4</td>
</tr>
<tr>
<td>- Growth in urban population</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Distributional disparities</td>
<td>*</td>
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### Average Rating of Cluster

7.4

**Significance of Impact**  
Nonsignificant  Minor  Strong  Critical  Determining

**R** = Impact on Subvariables  
**R'** = Relatedness to criteria of effectiveness  
**S** = Overall score
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<th>EFFECT OF IMPACT</th>
<th>POTENTIAL FOR POLICY INTERVENTION</th>
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<tr>
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<td>2.8</td>
<td>4</td>
<td>6.8</td>
</tr>
<tr>
<td>- The Nile Valley as a productive base</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>2.8</td>
</tr>
<tr>
<td>- Poor rural conditions</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>- Attractive amenities in urbanized areas</td>
<td>*</td>
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<tr>
<td>AVERAGE RATING OF CLUSTER</td>
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</table>

Significance of Impact NonSignificant Minor Strong Critical Determining R = Impact on Subvariables R' = Relatedness to criteria of effectiveness

points score 0—-—-1—-—-3—-—-5—-—-7—-—-9 S = Overall score
Factors that seemed to have present or potential, critical or determining impact on the housing situation and process were selected for further consideration in the Decision Agenda. The following is a list of the selected 21 factors.

I. SOCIOECONOMIC FORCES AND CHANGE
   1. Rural urban migration
   2. Labor drain
   3. Potential influx of labor
   4. Government gaining control over capital
   5. Private special interest gaining control over capital
   6. Financial constraints
   7. Industrial development
   8. Economic expansion
   9. Fluctuations and interruptions of revenue from the Suez Canal
   10. General rate of inflation

II. SOCIO-POLITICAL AND IDEOLOGICAL FORCES AND CHANGE
   11. Pluralism and diverse ideological and political trends

III. EXOGENOUS EVENTS/WAR & NATIONAL SECURITY
   12. Present hostilities in the Middle East
   13. Interruption of international trade due to hostilities

IV. TECHNOLOGICAL CHANGE
   14. Advancements in the building and construction systems
   15. Development in the use of building materials

V. DEMOGRAPHIC FORCES
   16. Rural urban migration
   17. Natural growth in urban population
   18. Distributional disparities

VI. NATURAL PHYSIOGRAPHY AND ENVIRONMENTAL SETTING
   19. The Nile Valley as a productive base
   20. Poor rural communities
   21. Attractive amenities in urbanized areas
The following classification of the 21 factors according to their controllability and potential for housing policy intervention should facilitate and promote their use in the Decision Agenda.

**DIRECTLY CONTROLLABLE**
- Rural-urban migration
- Industrial development
- Advancements in the building and construction systems
- Developments in the use of building materials
- Growth in urban population
- Distributional disparities
- Poor rural conditions
- Attractive amenities-urbanized areas

**INDIRECTLY CONTROLLABLE**
- Labor drain
- Potential influx of labor
- Economic expansion
- General rate of inflation
- Pluralism and diverse ideological and political trends
- The Nile Valley as a productive base

**NONCONTROLLABLE**
- Government gaining control over capital
- Private special interest gaining control over capital
- Fluctuation or interruption of revenue from the Suez Canal
- Present hostilities in the Middle East
As mentioned earlier in Chapter III; critical factors, identified in a situation, should help planners and policy makers in broadening the goal set and the choice of effective strategies. Policy analysts should also be able to study the interaction of the critical factors with various policy options. This should make up for the shortcomings of limitations of traditional policy analysis techniques. Thus critical factors can be incorporated with and support a viable framework for evaluation.

For example, the consideration of war as a critical impacting factor could add to the desired goals the goal of building resilience within the housing process. When choosing from among various options for the delegation of responsibility within the process, the search would be for the option that minimized the possible impact of war on the fulfillment of obligations and allocation of resources. In this respect, a policy option promoting central government domination of the housing process and maximizing reliance on the public role may be considered most vulnerable to the shakings and impacts of war. It is already evident that threats to national security and the outbreak of war has led the national government to reduce budget allocations for housing, cut off allocations for maintenance, direct the use of building materials and labor for defensive purposes and increase the financial allocations for defense. These effects were intensified with the loss of revenue from the Suez Canal that was blocked during war time. Actually the Canal earning constituted Egypt’s second largest source of foreign exchange earnings (Nyrop, 1983). On the other hand, the policy option promoting a self-governing housing process may be least vulnerable to such shakings provided central limits guarantee equal access to resources. Such a system can still be supported by the government. A policy option promoting absolute freedom of the market may not work for the public benefit during war, since the private sector may tend to exploit the situation and possible supply shortages by exaggerating prices beyond the affordability of the majority of the population, which was evident with the open door policy and liberalization of the market in the mid 1970s.
6.2 SUMMARY ANALYSIS AND ASSESSMENT OF THE EGYPTIAN URBAN HOUSING SITUATION

The analysis and assessment of the situation definitely indicates a severe urban housing problem whose solution necessitates a strategic planning effort. The following is a summary report of the major findings which include identified symptoms of the problem, issues of concern, major policy directions for the resolution of the problem and critical impacting factors within the Egyptian and international environment.

a. Symptoms of the Urban Housing Problem in Egypt
These include:
- High rates of population density in urban areas and disparities in population distribution.
- Overcrowding and stressful conditions.
- Rapid deterioration of housing supply and services.
- Inadequacy of the infrastructure.
- Deficiency in housing-related services and supplementary facilities.
- Mismatches between housing supply costs, quality and quantity to actual needs and affordability of households.

b. Elements of the Problem
Substantive elements (Relating to housing resources, need and product)
1) Limited material and financial resources available.
2) Limited available urban land for housing development and expansion. Accordingly, available lands are sold for astronomical prices.
3) Accumulated deficit in the housing supply.
4) High rate of increase in the demand for urban housing due to high rate of natural increase in population and migration from rural to urban areas.
5) Deterioration in housing quality reaching threatening structural safety.
6) Deficient environmental quality and services.
7) Unfavorable housing conditions such as overcrowding and lack of basic utilities.

Process Elements (relating to certain practices in the housing process)

1) Insufficient or lack of effective coordination and integration of housing and other impacting or related policies such as land reclamation, protection of valuable limited resources (mainly the productive Nile Valley), upgrading or rural areas and decentralization.

2) Insufficient quality control and supervision of building construction. Insufficient mechanisms for inducing compliance with building codes and standards for safety.

3) Lack of housing management skills and systems, especially at neighborhood and housing group levels. Lack of systematic maintenance of housing and its environment which leads to rapid deterioration.

4) Insufficient citizen participation in the formulation and evaluation of housing policy, legislation and programs.

5) Failure of most of the banking institutions to invest in or give loans to housing projects other than luxury condominiums that yield rapid returns.

6) Insufficient housing information base.

c. Current Issues of Concern Expressed by Various Groups and Agencies

1) Availability of housing
2) Affordability of housing
3) Scarcity of financial and material resources
4) Responsibility in the housing process
5) Inequitable and inefficient use of resources
6) Structural safety
7) Environmental quality

d. Major Policy Directions for the Resolution of the Problem

1) Advocating extensive central government control
2) Advocating a freer market and removal of central government control
3) Advocating integration of private and public role

e. Critical Impacting Factors

These are grouped in six clusters whose main headings are:
1) Socioeconomic forces and change
2) Socio-political and ideological forces and change
3) Exogenous events, mainly war as a threat to national security
4) Technological change
5) Demographic forces and change
6) Natural physiography and environmental setting
7.0 CHAPTER VII  EPILOGUE

The Epilogue is reserved by the author for her more personal and intuitive suggestions for further use and application of the critical factors model.

In the preceding chapters the author developed a conceptual housing model applicable to Egypt and possibly other developing countries with similar circumstances. The model was based on an integrated concept of housing as a need, a process and a product and the acknowledgement of critical factors that impact on the process and its environment. Through reconnaissance of the Egyptian environment, historic analysis of past experience, and assessment of the current situation, a set of impacting factors were identified and analyzed.

The type of model developed is viewed as having the following merits:

1) Handles factors not subject to quantifications which makes the model inclusive of all critical factors.
2) Makes explicit the assumed critical factors, their interrelationships, supporting data and judgements.
3) Is comprehensible to policy officials permitting them to effectively communicate with technical planners in the policy-making process. Such communication is essential but is not usually possible with mathematical models.
4) Has potential for possible assimilation of mathematical and other techniques of analysis.

The model developed demonstrated the necessity and feasibility of holistic conceptual approaches to the strategic plan of housing.

Also in the chapter are three further sets of conclusions. The first is a preliminary version of a Decision Agenda. The second includes some ideas regarding the resolution of the housing problem in Egypt. These ideas include principles for action related to the primary issues discussed in the Decision Agenda, possible goals and broad policies that may lay the ground work for an effective strategy to be developed. Finally,
implications for the global housing situation are also discussed at the end of the chapter.

7.1 A PRELIMINARY DECISION AGENDA FOR THE DEVELOPMENT OF EFFECTIVE HOUSING STRATEGIES

The analysis of the Egyptian urban housing situation showed that the current urban housing problem has both substantive and process elements. Substantive elements relate to housing resources, need and product. Process elements relate to certain practices in the housing process which might well be the root causes of the problem. A narrow conception of housing as a product focused policy makers and planners attention on the issues of economic efficiency, productivity, and affordability of housing. In turn proposals for the solution of the problem focused on cost reduction, limiting housing unit size, lowering norms and expectations, and redistributational policies.

Historically a multiplicity of forces and factors have impacted on the situation and in many ways affected housing policy formulation and implementation. Some of these factors have led to the aggravation of the problem. Some of these factors continue to exist, others are likely to emerge.

The above necessitates the establishment of a pattern of holistic strategic thinking based on an integrated concept of housing as a need, a process and a product, a clear picture of the environment as a source of impacting factors, analysis of past experience and a comprehensive assessment of the present situation as well as possible future trends. Such a holistic picture can help broaden the goal set and choice of feasible, effective housing strategies that are acceptable to the community, i.e., compatible with its value system, and taking into consideration future contingencies. In this respect it is important to note that such a holistic picture may lead policy makers to a restatement of the issues to be addressed.

Once the holistic picture of the Egyptian housing situation has been revealed, it becomes possible to lay out the general structure and features of a preliminary Decision Agenda for the development of effective
urban housing strategies for Egypt's immediate future. The agenda is set up in an operational way to facilitate its use as a possible tool for consensus building and participatory decision making. Thus, it can aid housing policy officials, housing professionals and developers, and citizen groups in structuring a strategic thought process for arriving at effective solutions to the housing problem. It can also be used by housing educators in training programs for housing students and practitioners through various demonstrative applications and exercises. The main structure of the agenda is based on the housing model described in Chapter III and the assessment of impacting factors, Chapter V. This includes a clarification of the primary issues as they relate to critical factors, a description of the general layout and structure of the agenda, key definitions for the comparative evaluation of strategic options, a list of suggested participants and a suggested sequence of application and techniques to be used.

The writer envisions presenting the agenda to the General Organization of Housing, Building and Planning Research in Cairo and the Egyptian Ministry of Housing. The Organization, or the Ministry, can then invite representatives from concerned agencies and groups to participate in a workshop demonstrating the use of the agenda. Participants in this workshop may comprise the nucleus for a task force or a national housing team that can promote the development and implementation of effective housing for Egypt in coordination with other development plans. This may also open new channels for the solution of the housing problem in Egypt.

Participants are expected to have an active role in the workshop. However, some of them may choose to attend as observers only.

Each participant in the workshop would be provided with the following:

- Summary Analysis and Assessment of the Current Egyptian Urban Housing Situation see Chapter VI item 6.2.
- A preliminary Decision Agenda for the development and evaluation of urban housing strategies in Egypt.
The Issues Restated

Five issues need to be highlighted: the value of housing, environmental quality, the economy of housing, the responsibility for housing and housing technology.

The Value of Housing to People:

Focusing on housing as a need, the primary issue of "value" emerges. The value of housing indicated by its usefulness to its principal users, is independently variable from the material standards of the supply and services provided. The value of housing in terms of human and social values relates more to the performance of housing, i.e., what it does for people. Market values relate more to the quality of housing in terms of material standards, i.e., what it is (Turner, 1977). Such a perception is extremely important for the assessment of housing need. The qualifications of housing as formal or informal, standard or substandard are not particularly indicative of performance. (The qualifications were discussed earlier in Chapter III, item 2.1.2). What matters most is the extent to which housing supply and services satisfy the needs of the users and reflects their norms and values. Based on that perception, three performance categories can be described:

A. Shelter (meeting survival needs)
B. Decent Housing (meeting welfare needs)
C. Adequate Housing (meeting fulfillment needs), Table 9.

Socio-cultural change and developments in housing technologies and equipment may induce changes in the user's norms and housing related values. This suggests that a housing problem may be depicted as the change in the relationship between norms and conditions; and that the result of housing policy responses may also be depicted as change in the relationship between norms and conditions, Figure 35. Constrained economic conditions may limit the choice of goals. However, ultimate goals can be phased according to priority and availability of means.

Environmental Quality:

The quality of the housing environment affects the health, safety and satisfaction of the users. In the past it has not been a major issue in the Egyptian housing situation. However, it is recently emerging as
Table 9

<table>
<thead>
<tr>
<th>Hierarchy of Human Need</th>
<th>The Value and Quality of Housing in Relation to Need and Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Survival needs</strong> which are absolute necessities that pertain to health and safety. These are needs shared by humans and animals.</td>
<td><strong>Shelter housing:</strong> Housing that provides protection from the elements and enemies i.e., provides security essential for survival.</td>
</tr>
<tr>
<td><strong>Welfare needs</strong> which transcend biological survival to general social and psychological welfare. for example, the need for privacy, for self respect, for a sense of community and belonging, for education, for cultural continuity and a sense of freedom, choice and social equity.</td>
<td><strong>Decent housing:</strong> Housing that provides shelter and ensures privacy as a basic welfare and fulfillment need and value, i.e., housing compatible with norms and upheld values of the community of users.</td>
</tr>
<tr>
<td><strong>Fulfillment needs</strong> which relate more to personal values and variant social, intellectual and psychological needs, such as the need for self-expression and aesthetics.</td>
<td><strong>Adequate housing:</strong> Housing that is secure, decent and adequately satisfies the welfare needs of its users, i.e., housing that is comfortable, convenient and facilitates the fulfillment of the aspiration of its users.</td>
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</tbody>
</table>
Figure 3

Housing problems and policy responses.

A. Norms remain unchanged; conditions decline.

B. Norms are raised; conditions remain unchanged.

C. Norms are raised; conditions decline.

A. Norms are lowered; conditions remain unchanged.

B. Norms remain unchanged; conditions are improved.

C. Norms are lowered; conditions are improved.
an important issue. More voices are heard calling for environmental planning and protection. Recent failures in the infrastructure prompted immediate attention and action to renew and upgrade the system in major urban areas. An important question is whether the present building codes, housing legislation and land use controls are sufficient and effective. It is an issue that needs thorough investigation and a serious effort to determine priorities.

Critical impacting factors warranting attention in this respect, include rural urban migration, the growth and disparities of the urban population as well as the availability of labor and resources. It seems desirable to deflect migration away from urban areas and to the new communities while putting a hold on vertical expansion within existing congested urban areas. It may also seem efficient to provide needed services, incentives and improvements of conditions for the rural population to encourage them to remain where they are.

The Economy of Housing:

This issue gained attention in previous reports on the Egyptian housing problem and proposals for its solution. The issue is of primary importance, given the strained economic conditions in the country. Most of the previous analysis focused on economic factors contributing to the problem. In turn, the proposed solutions focused mainly on achieving maximum additions to the housing stock, through cost reductions, either by reducing the unit size, lowering standards, or promoting efficient designs and construction management. Thus, a vast majority of legislators, administrators, planners and builders assumed housing economy to be a function of productivity. In light of the integrated concept of housing presented in this study, the issue of housing economy is assumed to have wider implications. It incurs resourcefulness, efficiency, productivity, and affordability. It also relates to the primary issues of value and responsibility. For example, heteronomous centrally administered systems often produce things of high standard, at great cost and bureaucratic inefficiency, while autonomous locally self-governing systems produce things of extremely varied standards, but at low cost and high user value. Furthermore, the productivity of centrally administered
systems diminishes as it consumes capital resources, while the productivity of locally self-governing systems increases as it generates capital through the investment of income. This is because the third or community sectors, can be seen to control critically important resources over which the commercial or public 'corporate' sectors have little or no effective control, (Turner, 1978).

Finally, if attention is limited to material resources, the situational assessment will indicate a great deficit limiting possibilities for the achievement of ultimate desired goals. A wider approach and consideration of human potentials and resourcefulness can enhance the perception of the resource base and accordingly expand possibilities for goal achievement. The issue becomes how to mobilize human resources, stimulate imagination, initiative, co-operation and determination. Training programs may promote human skills and a restructuring of the housing process may encourage actual citizen participation in the management, maintenance and upgrading of the housing environment.

In this respect the following three alternative approaches to optimization of resource use can be identified:

1) Lowering space standards and industrialization of housing construction. This approach is presently adopted by the Egyptian government and advocated by foreign consultants.

2) Maximizing the use of local resources, including human, material and technical, to create housing environments compatible with the natural environment and within the means of the local population. This approach is advocated by the award winning Egyptian architect, Hassan Fathy, who wrote the famous book Architecture for the Poor.

3) Maximizing the use of local resources while promoting the productivity of the housing environment through the integration of food-production activities, the tapping of solar energy, waste recycling, and desalination of sea water in residential communities, (Farahat, 1980).

Perhaps the most critical impacting factors related to the issue of economy, are the economic trends affecting control over capital, financial constraints, national revenue and budget allocations. Accordingly it may be advisable to promote self reliance to maximize the use of local...
resourcefulness and improve the overall efficiency in the housing process. This is provided central limits guarantee equal access to resources. Imposing lowered standards may not prove to be socially acceptable or desirable.

Responsibility:

The issue of responsibility in housing relates strongly to the conception of housing as a process. Responsibility suggests the division and distribution of levels of action and authority. Basically, it is a function of who decides what shall be done, and who provides the means. Furthermore, the issue of responsibility cannot be isolated from the issues of value and economy, since the structuring of the housing process and the interplay of actors have a strong bearing on the efficiency and productivity of the process as well as the value of the outputs. To make this point clearer, one can use the analogy of connecting batteries to produce electricity. The same number of variables can produce different outputs, depending on the way they are grouped. Batteries connected in series produce greater output than those connected in parallel. The first step in disseminating responsibility is the acknowledgement of the resourcefulness of the various actors and their rights of participation in the process. The second step is to explore the roles the actors can play at each phase of the process. The roles can be viewed in relation to the current administrative and socio-political context or in relation to possible changes or modification of the current context. Such an exploration would involve in depth consideration of the three major policy trends described in Chapter V and their relationship to critical impacting factors.

Critical impacting factors related to responsibility seem to be, pluralism and diverse ideological and political trends, government or private interest gaining control over capital, the drain or influx of labor. Exogeneous events such as war may diminish the roles and participation of certain actors as well as the resource allocations. To decrease or limit vulnerability of the housing process to such fluctuations
and shakings, it may be wise to promote a self governing system mobilizing the broad base of participants and building in resilience.

Technology of Housing:

The issue of technology of housing is closely related to the other four primary issues discussed above. It also directly relates to technological change as a critical impacting factor.

Improvements or innovation in the manufacture and use of building materials and construction systems may result in improved efficiency, economic gains, time savings, and improved quality. This in turn could enhance the availability and affordability of housing. However, it is very important to make a distinction between mass-production, or large scale industrialization of housing and the use of appropriate technology. Large scale industrialization of housing may limit opportunities for self-reliance and benefits of small scale local resourcefulness, craftsmanship and variations in housing design to meet diversified needs. It may also lead to increased dependence on imported technology and involvement of multi-national corporations. The challenge is to search for and sensitively apply technological improvements and innovation without loosing the benefits and opportunities of local resourcefulness and creativity. Appropriate technology does not necessarily exclude the use of large scale massproduction, it only allows its use where appropriate.
The general layout of a Decision Agenda for Housing includes the following items suggested:

I. THE INTEGRATED CONCEPT OF HOUSING *
II. THE NETWORK OF RELATED ISSUES
   A. Primary issues *
   B. Subsidiary issues *
III. IMPACTING FACTORS
   A. Directly controllable *
   B. Indirectly controllable *
   C. Non-controllable *
IV. STRATEGY OPTIONS
   A. Possible goals (Where we want to go?) **
   B. Policy options (How to get there?) **
   C. Potential variables *

See Figure 36.

*Provided by the analysis
**To be explored by the participants
Figure 36. Preliminary Decision Agenda
Detailed Structure of the Decision Agenda

I. THE INTEGRATED CONCEPT OF HOUSING

This is the base line definition from which the agenda is generated. In other words, it is a key reference built in the agenda. Housing is conceived as a subsystem of society that provides an environment for the fulfillment of human needs. Housing as a need is an input to the system, housing as a product is an output from the system and housing as a process includes the throughputs for the conversion of inputs to outputs.

The Housing Model Developed and Used in This Research, A Model Applicable to Egypt. [*Focus of the Research]
II. THE NETWORK OF RELATED ISSUES: This is a summation and redefinition of the issues to be addressed in the agenda. The issues are derived from the broad scanning of previous reports and proposals referred to in the situation assessment (Chapter V Item 5.4.1) and Appendix B. The way they are presented in the Agenda attempts to establish or clarify the link between the issues and the integrated concept of housing. The network is comprised of a list of primary and subsidiary issues. Primary issues may be viewed as root issues from which the subsidiary issues branch. A thorough discussion of these issues could enhance their understanding and agreement on their implications.

### NETWORK OF RELATED ISSUES

<table>
<thead>
<tr>
<th>A. PRIMARY</th>
<th>B. SUBSIDIARY</th>
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<tbody>
<tr>
<td>Value of Housing to people</td>
<td>Performance</td>
</tr>
<tr>
<td>Environmental quality</td>
<td>Availability</td>
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<tr>
<td>Economy of housing</td>
<td>Affordability</td>
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<tr>
<td>Technology of housing</td>
<td>Efficiency</td>
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<td>Responsibility</td>
<td>Productivity</td>
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<td>Technical Development</td>
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<td>Innovation</td>
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<td>Improvement</td>
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<td>Planning</td>
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<td>Legislation/Control</td>
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<td>Implementation</td>
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<td>Compliance</td>
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<td>Management</td>
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<td></td>
<td>Maintenance</td>
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<td></td>
<td>Renewal and upgrading</td>
</tr>
</tbody>
</table>

**Issue:** a point of debate, the point at which an unsettled matter is ready for a decision.

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III. CRITICAL IMPACTING FACTORS

Based on the assessment of impacting factors, Chapter VI, a set of critical factors is included in the agenda. Critical impacting factors are viewed as forces that are most powerful in determining the success or failure of public policy goals and strategies. Awareness of these factors and their potential controllability by housing policy, can help in the setting of goals and the choice among alternatives. A set of exploratory questions can help in clarifying the interaction between the options and factors. The critical impacting factors were found to be:

DIRECTLY CONTROLLABLE

- Rural-urban migration
- Industrial development
- Advancements in the building and construction systems
- Developments in the use of building materials
- Growth in urban population
- Distributional disparities
- Poor rural conditions
- Attractive amenities-urbanized areas

INDIRECTLY CONTROLLABLE

- Labor drain
- Potential influx of labor
- Economic expansion
- General rate of inflation
- Pluralism and diverse ideological and political trends
- The Nile Valley as a productive base

NONCONTROLLABLE

- Government gaining control over capital
- Private special interest gaining control over capital
- Fluctuation or interruption of revenue from the Suez Canal
- Present hostilities in the Middle East
IV. STRATEGIC OPTIONS

A. Possible goals: Based on the situational assessment, comprehension of related issues, and awareness of critical factors, sets of possible goals can be identified. A subset of questions may help determine priority among the goals. Goals are viewed as an articulation of values, formulated in light of identified issues and problems, towards the attainment of which policies and decisions are directed.

B. Policy Options: these present the spectrum of alternative policy options for the achievement of goals. Policies represent guides to present and future decisions delineating a general course of action for the fulfillment of goals.

C. Potential Variables: A set of key variables was identified as having potential for housing policy intervention.

<table>
<thead>
<tr>
<th>Norms</th>
<th>Values</th>
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<tbody>
<tr>
<td>Location</td>
<td>Methods of construction</td>
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<td>Size of units</td>
<td>Scheduling operation</td>
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<tr>
<td>Design</td>
<td>Equipment</td>
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<tr>
<td>Materials</td>
<td>Supporting System</td>
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<td>Fixtures</td>
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<td>Finishing</td>
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<td>Utilities</td>
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<td>Supporting Services</td>
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<td>Amenities</td>
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<td>Land</td>
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<td>Human</td>
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<td>Technology</td>
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Key Definitions for the Comparative Evaluations of Strategic Options

The following definitions should clarify the terminology used in the evaluation. See Webster's New Collegiate Dictionary, 1981.

**Feasible:** capable of being done or carried out/practically attainable

**Effective:** producing a decided, decisive or desired effect.

**Efficient:** productive of desired effects; especially without waste/achieving more with less/yielding a high benefit to cost ratio.

**Equitable:** dealing fairly and equally with all concerned.

**Equity:** justice according to natural law and right; specifically freedom from bias or favoritism.

**Acceptable:** capable or worthy of being accepted, barely satisfactory or adequate.

**Desirable:** worth seeking or doing as advantageous, beneficial, or wise; advisable/ It is not only socially acceptable but also preferable and most compatible with the general value system of society.

**Cost:** in public policy analysis cost is much more than the expenditure of money -- the consumption of physical resource, the employment of human labor, and the dissipation of time. Costs may be outputs that follow as a consequence of a policy decision as well as inputs designed to implement it. Costs as output represent negative impacts or consequences to be avoided or minimized, (Quade, 1975).

The agenda may be viewed as a possible tool for consensus building in participatory decision making.
Preliminary List of Participants

Official Housing Policy Makers
- The Egyptian Ministry of Housing
- The Egyptian Ministry of Urbanization and New Communities
- The National Organization of Housing Cooperatives

Technical and Planning Bodies
- The General Organization of Housing, Building and Planning Research
- The National Institute of Planning
- The Egyptian Universities' Task Force on Housing
- The World Bank Branch in Egypt
- The USAID Branch in Egypt

Citizen Representatives
- The National Assembly's Committee on Housing
- The Shura Council

Professional Groups and Societies
- The Egyptian Syndicate of Engineers
- The Egyptian Society of Architects
- The National Union of Laborers

Financing Agencies
- The Union of Islamic Banks
- Nasser's Social Bank

The Press
- The Egyptian Labor Magazine
- Al-Ahram Economist
Sequence of Application

This section describes the procedural steps of using the Decision Agenda by a group of active participants in a meeting or workshop. The procedures can be applied in two sessions with a recess in between. The objective of the first session is to generate ideas regarding strategic options. The objective of the second session is to compare and evaluate suggested strategic options and build a consensus regarding their desirability and appropriateness. The sequence of procedural steps may be as follows:

The First Session: Generation of Ideas

1. Opening statement of purpose and introduction of participants by the principal host of the workshop. The principal host can act as the chairman and leading mediator of the workshop, or delegate that responsibility to a qualified assistant.

2. Ensuring that all participants have copies of the Summary Analysis and Assessment and the Decision Agenda provided prior to meeting.

3. Allowing sufficient time for the participants to review individually the material handed to them and to seek any clarification from the leading mediator.

4. Systematic group review and discussion of the items on the agenda which are already identified and provided by the research. Suggestions for additions or modification may be expressed by the participants and noted by the leading moderator.

5. Allowing sufficient time for the participants to silently think about and write down their suggestions for possible goals and policy options.

6. Verbal sharing of ideas by the participants to be organized by the leading mediator. All participants should be guaranteed the right to express their ideas.

7. Summation of suggested goals and policy options in terms of clear alternatives. The preliminary form for comparative evaluation presented in Chapter 3, Figure 22 can be used for this purpose.

Recess: Allowing a short break for the participants to refresh themselves, have a snack and communicate informally. During the recess, copies of the summation of alternatives can be made.
Second Session: Comparative Evaluation and Consensus Building

8. Distribution of the summation of alternatives suggested in the first session.

9. Discussion and comparative evaluation of goals in terms of acceptability, feasibility, desirability and priority. This can involve silent individual thoughts and writing followed by verbal group sharing and discussion and elimination of non-acceptable or non-feasible goals. Group ranking of remaining goals in terms of their priority and desirability.

10. Discussion and comparative evaluation of suggested policies to achieve the goals in terms of expected effectiveness in achieving desired goals, social acceptability, efficient use of resources and equity.

11. Selection of policies that are likely to be most effective; acceptable, efficient and equitable.

TECHNIQUES

Certain Group Dynamic Techniques may be applicable while using the Decision Agenda. For example: attitude surveys, nominal group technique (NGT), Delphi, charette and brainstorming. NGT may prove to be particularly useful in the assessment of need, exploration of alternative solutions and priority setting. Such techniques help in identifying a threshold of agreement among representative of the various actors involved in the housing process; as well as clarifying points of difference or conflicts to be resolved by the participating decision makers. NGT which combines both nonverbal and verbal stages in a structural group meeting includes:

1) Silent generation of ideas in writing.

2) Round-robin feedback from group members to record each idea in a tense phrase on a flip chart.

3) Discussion of each recorded idea.
**7.2 RECOMMENDATIONS FOR THE RESOLUTIONS OF THE HOUSING PROBLEM IN EGYPT**

A. **Principles for action related to the primary issues:**

i. **Housing is a social responsibility:** The society is responsible for the provision of shelter to satisfy a basic human need and a necessity for survival. It is also responsible for the promotion of adequate housing environments. Adequate shelter and services are a basic human right which places an obligation on the state to ensure their attainment by all people. However, the State's efforts to fulfill this obligation must in no way interfere with freedom of choice and action within the limits of 'Sharia', i.e., Islamic jurisprudence and in accordance with the values and principles upheld by the Egyptian society. These values and principles are not viewed in any way as impediments to change, on the contrary they are viewed as stimulants and guidelines for change.

ii. **Development is a comprehensive process that deals with ever changing dynamic and interdependent conditions, and should be carried out as a human process.** It is not simple or unplanned growth. It encounters problems that are closely connected to human behavior and therefore could not be governed by rigid and dogmatic laws, or mathematical formulas and equations, but it may follow reasonable and flexible general guiding principles (Said, 1981). Public participation is a human right, a political duty and an instrument essential for national development, especially under conditions of resource scarcity. Unless people are encouraged to participate through appropriate political, economic and social institutions, they cannot identify
with the decisions which affect their daily lives (U.N., 1976).

iii. **Self-reliance ensures the stability and continuity of the system.** The establishment of a self-reliant, self-governing housing system based on training and encouragement of the broad base of citizens to actively participate in decision-making and consensus building, can have the benefit of built-in flexibility, resilience and responsiveness, which should enable the system to continue, meet various challenges and avoid threats. Centrally dominated systems -- in which the State is the planner and controller of housing, private developers are the executors, and the eventual users of housing are confined to the role of the beneficiary spectator -- have often proven to be vulnerable to unexpected crises and events. A self-reliant housing system also has the advantage of effectively pooling the resources of the public, private and third sectors and coordinating their roles at the various levels and phases of the housing process, Figure 37.

A corollary of this principle is that requisite variety in dwelling environments can be achieved and that supply and demand can be properly matched and consequently satisfied, only when housing is determined by households and local institutions and the enterprises they control (Turner, 1978).

iv. **The use of appropriate technologies for housing,** especially the mechanical and managerial tools that are available and used by people and small organizations, can guarantee the effective use of locally available resources.

v. **Planning for housing through limits:** Centrally guaranteed limits should ensure equitable accessi-
<table>
<thead>
<tr>
<th>Phases Principal Actors</th>
<th>Strategic Planning</th>
<th>Legislation</th>
<th>Policy Planning &amp; Programming</th>
<th>Environmental Planning &amp; Design</th>
<th>Production &amp; Marketing</th>
<th>Consumption Management &amp; Maintenance</th>
<th>Renewal &amp; Upgrading</th>
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<td>Users &amp; Consumers</td>
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</table>

Figure 37 Phases, actors and levels of housing process.
bility to vital resources without inhibiting or obstructing responsiveness to variant needs and flexibility. Planning that is confused with design or which lays down lines that people and organizations must follow, or which imposes undue restrictive details eventually leads to the inhibition of enterprise and the loss of resources. While on the other hand planning that guarantees limits to private action can maintain equitable access to resources and avoid exploitation (Turner, 1978).

vi. The repelling of danger takes precedence over the acquisition of benefit. This principles has important implications in the determination of priorities and definition of public interest. Its application can be very valuable; particularly in situations where a conflict of interest exists, for example in cases of urban renewal where the interests of developers and profit oriented groups may conflict with interests of local residents. It is also important with regard to enforcement of safety standards, removal of nuisances and prevention of abuse of rights or misuse of property. In light of this principle, the exercise of right is permitted only for the achievement of the purpose for which the right was created; the exercise of a right is illegal if used to bring injury to others (Ilewellyn, 1980).

vii. Social symbiosis (Al-Takaful) According to this principle, members of the community are considered like organs of one body; if any organ is in trouble the rest of the body responds to it and is affected. Thus, mutual support, collaboration and cooperative behavior are greatly encouraged and considered normative behavior. A common practice among Egyptians is to pool savings together in a 'Gamia'
and take turns in utilizing the pooled savings to finance individual projects and fulfill personal and family needs. 'Zakat', or poor's due, is a powerful social security system. Zakat is given directly to needy individuals or indirectly through special organizations or committees. Recently, some banks are given the responsibility to manage Zakat funds to meet the needs of the least advantaged segments of the population and conduct special projects for personal and community development. In a few individual instances some of these funds were channelled for housing purposes.

viii. Mutual agreement in commercial dealings 'Al-Taradi': According to 'Sharia', determination of the price of goods, including housing, is the subject of mutual agreement between the buyer and seller or owner and tenant. People are free in their financial dealings. However, the government is allowed to intervene to protect people's rights and remove injustice in the case of clear transgression by property owners who may be holders of absolute necessities for survival such as food or shelter.

b. Goals

Based on the preceding principles, the following goal set is envisioned by the writer to have potential for feasibility and acceptability.

i. The first and prime strategic goal is to facilitate the provision of safe, decent and adequate housing environments that satisfy basic needs relating to the survival and welfare of the Egyptian population with its various segments, while maximizing the wise and efficient use of available resources and opportunities. This means increasing the supply
of adequate and affordable housing to satisfy the existing needs and estimated future demand as well as upgrading the existing urban housing supply, services and infrastructure.

ii. To deflect rural-urban migration away from presently congested urban areas.

iii. To relieve congestion and overcrowding and reduce existing disparities in population densities.

iv. To gradually promote and establish a self-governing housing process that involves the various actors in active decision making and responsible management of housing and the surrounding environment and encourages third sector groups and organizations to participate in solving the housing problem.

v. To revise and modify the present housing legislation to be compatible with the basic concepts of self-government within reasonable limits to guarantee equity and promote sound interactions reflecting upheld values and principles.

vi. To more effectively coordinate housing policies and legislation with policies related to urbanization, land reclamation and protection of valuable fertile (cultivated) land.

c. Policies

In order to achieve those goals, the following policies are suggested.

i. Expand the serviced land supply for urban housing along existing main desert roads linking major cities and coastal areas which have a potential for development, Figure 38.

The Agency for New Communities is presently active in this respect. However, evaluation and assessment of past experience can help improve performance and redirect policies. Co-operation between the Agency, the General Organization of Housing,
Figure 38  Land for potential development.
Building and Planning research can prove to be beneficial.

ii. Promote efficient utilization of wasted urban space to provide for needed services and supplementary facilities. The recently introduced aerial photography and remote sensing systems should be effectively utilized by the Organization of Urban Planning in conducting surveys and preparing improvement plans. Input and suggestions from local residents should be sought and encouraged.

iii. Encourage and support research efforts related to housing norms and family needs and relating them to housing performance standards which can provide an opportunity for creative design solutions that could be cost efficient without necessarily sacrificing quality. Since performance standards may prove to unrealistic, inflexible, restrictive or unduly lowered standards to minimize cost per unit area and cost per capita, clearly defined housing norms could help in determining the acceptability and desirability of alternative standards. When the limits are set, and the housing norms understood and defined, it will be possible to promote more sensible, sensitive and responsive solutions, where efficiency and economy do not undermine the choice of 'the appropriate'.

iv. Encourage semi-private corporations or establishments to make good use of funds from the percentage of their profits designated by law for employee housing purposes. Technical assistance from the Ministry of Housing may help such corporations to disseminate those funds efficiently and effectively, through direct assistance programs, rent subsidies to employees, free interest loans or actual construction of employee housing.
v. Islamic bank funds can also be effectively helpful in financing different types of housing projects serving various target groups and involving various investors. Table 10 shows a preliminary vision of how these funds can be directed. This means expanding the present role of the banks and revising some of their current policies. An encouraging sign is the recent involvement of the International Islamic Bank for Development in planning and sale of new subdivisions in Al Mokatam City east of Cairo.

vi. Putting a halt on vertical expansion in congested urban areas to new communities.

vii. The encouragement and development of a network of committees for the improvement of housing environment (CIHE). These committees can be formed at various levels; the housing group level, neighborhood level, local community, regional and national levels, Figure 39. These committees can be integrated with the existing governing system is shown in Figure 40. Such a network can help mobilize and coordinate third or community sector resources and efforts as well as ensure users participation in decision making at the various levels of the housing process.

Users of housing can be called upon by the Ministry of Housing to form such committees. Local housing officials can invite the users to preliminary meetings or conferences to present, discuss necessary actions for the initiation and establishment of the committees. The Ministry of Housing can also call upon the media to creatively help in the presentation and propagation of the idea. The ministries of Education, Health and Social Welfare can also be approached for assistance and collab-
Table 10  
A POSSIBLE ROLE FOR ISLAMIC BANKS IN THE RESOLUTION OF THE HOUSING PROBLEM

<table>
<thead>
<tr>
<th>HOUSING ACTIVITIES/PROJECTS</th>
<th>MAIN ACTORS/PARTNERS TO THE ISLAMIC BANK</th>
<th>TARGET GROUPS/MAIN BENEFICIARIES</th>
<th>FUNDING SOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PRIVATE DEVELOPERS (PROFIT-ORIENTED)</td>
<td>HIGH INCOME</td>
<td>ISLAMIC BANK FUNDS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MIDDLE INCOME</td>
<td>SAVING CREDIT FUND</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LOWER INCOME</td>
<td>INVESTMENT FUND</td>
</tr>
<tr>
<td></td>
<td>COMMUNITY OR 3RD SECTOR GROUPS OR ORGANIZATIONS</td>
<td></td>
<td>SOCIAL FUND</td>
</tr>
<tr>
<td></td>
<td>USERS OF HOUSING</td>
<td>LOWEST INCOME ON SUBSISTANCE</td>
<td>GOVERNMENT FUND</td>
</tr>
<tr>
<td>NEW HOUSING CONSTRUCTION</td>
<td></td>
<td></td>
<td>ISLAMIC BANK FUNDS</td>
</tr>
<tr>
<td>UPGRADING OF EXISTING HOUSING</td>
<td></td>
<td></td>
<td>SAVING CREDIT FUND</td>
</tr>
<tr>
<td>MAINTENANCE &amp; REPAIR</td>
<td></td>
<td></td>
<td>INVESTMENT FUND</td>
</tr>
<tr>
<td>IMPROVEMENTS</td>
<td></td>
<td></td>
<td>SOCIAL FUND</td>
</tr>
<tr>
<td>URBAN RENEWAL</td>
<td></td>
<td></td>
<td>GOVERNMENT FUND</td>
</tr>
<tr>
<td>Site &amp; Service Provision</td>
<td></td>
<td></td>
<td>ISLAMIC BANK FUNDS</td>
</tr>
<tr>
<td>Provision or Improvements</td>
<td></td>
<td></td>
<td>SAVING CREDIT FUND</td>
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<td></td>
<td>GOVERNMENT FUND</td>
</tr>
</tbody>
</table>
Figure 39 Proposed structure/network/chain of committees/councils for the improvement of housing environment (self-governing-network)
The Integration of the Proposed Committees for the Improvement of Housing Environment with the Existing Local Governing System and its Relationship to the Executive Branch.
oration in the initiation of the proposed CIHE network.

Although the purpose of such committees is the same at the various levels, yet the functions may slightly differ, e.g., the housing group and neighborhood committees may have the following functions shown in Figure 41:

i) Management and maintenance of the immediate housing environment, e.g., management and maintenance related to plumbing, sanitation, garbage collection and disposal or recycling.

ii) Improvement and upgrading of the environment, including the housing units, services and facilities, e.g., making use of waste space in the provision of parking garages and children's playgrounds. Users initiative and creative ideas may inspire designers with sensitive and responsive solutions. Figures 42, 43, 44, 45 and 46.

iii) Mutual support or social symbiosis, e.g., pooling funds for mutual support, housing assistance, loans, etc.

iv) Promoting a sound, satisfactory relationship between the tenants or occupants of housing and owners or landlords.

v) Participation in the foundation of housing policy through representation in the network and expression of opinion.

An example of third sector organizations that can participate in the resolution of the problem, through the CIHI, are the 'Zakat committees' which are spread all around the nation. These can be actively involved in meeting the housing needs of the lowest income segments of the population, especially since they are linked to Nasser's Social
Major Functions of the Proposed Committees at the Neighborhood and Housing Group Level

Management & Maintenance

Improvements & Upgrading

Mutual Support

Participation in the Formulation of housing policy through representation in the network

Promoting a sound satisfactory relationship between tenants and landlords

Figure 41. Major Functions of the Proposed Committees
Figure 42  Open space, once a nicely planned garden for children now used as parking lot.
A 13-story apartment building has a total of 72 families.

A children's playground was intended for, but now used as parking.

Proposed resolution of conflict: solution combining both garage and playground.

Figure 43. Proposed Multiuse of Same Space to Accommodate Parking and Playground.
Figure 44 Wasted urban space that can be used to provide needed services and supplementary facilities, e.g., a children's playground super imposed on a parking garage.
Figure 45. Using wasted space to satisfy needs and reduce deficiencies in the housing environment at the neighborhood level committees, e.g. of projects for the improvement of housing environment at the neighborhood level.
A common open space in one of the economic housing neighborhoods – opportunity to set up a children's playground.

Surrounding environment with variations in topography: An opportunity for sensitive landscape design and amenity

Figure 46. Opportunities for Landscape Design and Amenities
Bank through which a percentage of profits are channelled to serve the needy, Figure 47.
Encouraging Summer work camps for the improvement of the housing environment. The Supreme Council of Youth and Ministries of Education and Higher Education can co-operate with the Ministry of Housing in the planning and organization of the camps and the provision of training, materials and equipment for maintenance and upgrading services. Graduates not eligible for compulsory military service and those participating in the existing civil service program can be trained to help local residents in maintenance and upgrading of housing and the promotion of the surrounding environment through the proposed CIHE.

viii. Revision of the present housing legislation to promote self-government and remove over-restrictive, unnecessary or unrealistic prescriptive clauses based on arbitrary designations or inadequate assumptions, such as the designation of the percentage of housing to be built at the four levels: low income, average, above average and luxury housing, and the improperly assumed relationship between the size of the housing unit and its rating as average, above average or luxury housing. It is obvious that various factors are involved in such rating other than just the size or area of the unit.

Another item that needs revision is the limitation on the percentage of condominiums allowed in a building after the dramatic increase in sale prices of these condominiums." Perhaps a more effective

* While lowest income families found it hard to come up with L.E. 12.5 as a monthly rent for a public housing apartment, a contracting company was able to buy an apartment in a relatively old building, at
Figure 47: Schematic outline of the affiliations of the committees for the improvement of housing environment at the neighborhood and housing group levels.
and beneficial legislation would require both the sellers and buyers of units whose sale exceeds average sale price in the local area, to pay a specified percentage of that sale price to a local housing fund at the closure and registration of the deed. The fund can be used to upgrade the local environment and relieve hardship on lowest income families suffering from unfavorable housing conditions.

ix. To ensure operational land development and protection policy in coordination with financial policies that could provide both incentives for migration to newly developed land and penalties for encroachment on fertile agricultural land. Incentives may take the form of tax exemptions, as is happening now, and/or interest-free loans and leasing of equipment. Penalties or disincentives may be imposing high taxes on urban housing forced on agricultural land.

d. **Horizon**

The ultimate desirable goals or conditions cannot be realized in a short period of time. This means that a long range plan is needed; a plan in which the ultimate goals are phased in so that at each stage certain policies are directed towards the achievement of intermediate goals. Depending upon the available resources and apparent constraints and opportunities, a long range housing strategy can be staged so as to gradually achieve the ultimate desirable conditions, Figure 48.

e. **Summation of Recommendations**

**Principles**

i. Housing is a social responsibility

ii. Development is a comprehensive human process

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the central business district of Cairo, for L.E. 300,000 in 1983. The apartment size did not exceed 140 sq. m. (Yassa, 1983).
Possible, unexpected encouraging, accelerating and promoting factors, forces and opportunities (↗️) Possible or unexpected impeding, discouraging or threatening forces and factors (↘️)

Set of current conditions

Most desirable
Acceptable
Acceptable but least desirable
Uncertain acceptability
Not acceptable

Figure 48 Phasing of the strategy to reach the ultimate desirable stage.
iii. Self-reliance ensures the stability and continuity of the system
iv. The use of appropriate technology
v. Planning for housing through limits
vi. The repelling of danger takes precedence over the acquisition of benefit
vii. Social symbiosis
viii. Mutual agreement in commercial dealings

Goals

i. Facilitating the provision of safe, decent and adequate housing environments with sufficiency and affordability guaranteed to all.
ii. Deflection of rural-urban migration to new communities.
iii. Relieving congestion in urban areas
iv. Promotion and establishment of a self-governing housing process
v. Promoting compatible housing legislation
vi. Effective co-ordination of Environmental Policies and legislation for housing, urbanization, land reclamation and valuable resource preservation

Policies

i. Expanding the serviced urban land supply
ii. Promoting efficient utilization of urban space
iii. Encouraging research efforts related to housing norms and needs
iv. Making good use of housing funds of semi-private corporations
v. Encouraging Islamic Banks involvement in housing
vi. Putting a halt on vertical expansion in congested urban areas
vii. Encouraging and developing a network of committees for the improvement of housing environment (CIHE)
viii. Encouraging summer youth camps for maintenance and upgrading
ix. Revision of the present housing legislation
x. Insuring an operational land development policy supported by a reasonable effective system of penalties for violation and incentives for compliance and initiative

7.3 IMPLICATIONS FOR OTHER NATIONS

Although the research was mainly geared to the Egyptian housing situation, several factors in the situation are common in many developing countries. Thus, the housing model developed and applied in the research, as well as the methodological procedures developed, and comprising the critical factors approach, can be largely applicable to other developing countries with similar circumstances. This may be further clarified with the following review of the housing problem in those countries.

Developing countries are experiencing a most rapid growth in population, urbanization and social transformation while they are mostly the nations with the least financial resources to cope with the change.

The United Nations Department of Economic and Social Affairs postulated that developing countries have certain characteristics in common, mainly a) a growing population, b) national government firm commitment to economic development, c) undergoing a process of industrialization and urbanization, d) rural families migration to urban centers, and e) mounting backlog of accumulated needs while governments find themselves unable to keep up with the needs of current population growth. Thus, the daily environment of the vast majority of the people of these countries is deteriorating with grave implications for future public health, productivity, and social peace. (United Nations, 1976).

The common characteristics mentioned above, may be considered as important factors impacting on the housing situation in developing countries. In 1975 less developed countries (L.D.C.)* accounted for 72.5% of the world population and are expected to account for 80% of the world population in the year 2000, (Burns and Grebler, 1977).

* L.D.C. is sometimes used as another term for developing countries.
An important characteristic of the population of developing countries that has direct impact on housing is the age structure which shows that most of the population of developing countries are young people who have their child bearing years ahead of them, and thereby built-in momentum for further growth. The population pyramid also reveals that the majority of the clients to be concerned with are large families. Of the total of two and a quarter billion people in over one hundred developing countries, some 900 million are under the age of 15. In 1950, developing countries had only 24 cities with one million people. Now they have 101. Slums are home to at least one-third of the urban population in all developing countries, and the slums seem to be growing twice as fast as the towns and cities as a whole. The increase in the cities of the poor world is putting enormous strain on totally inadequate facilities. Already nearly four out of every five of the citizens of Calcutta live with their families in one-room homes, and that does not count the hundreds of thousands who have to take what shelter they can find on the pavements and in ditches (Lean, 1980).

The World Health Organization estimated in 1970 that only half the people of the cities of the poor world had any access to regular water supplies, and half of those had to rely on public shared pipes. Sewage disposal is usually either scarce or inadequate in many cases causing contamination of public water supplies and consequently disease and mortality. Many observers have noted that deteriorating conditions in poor cities have given birth to a generation of cynical youth ready to resort to desperate measures to achieve their ends and that unless conditions are improved for the vast majority, agitation and violence will continue (Lean, 1980).

In a recent editorial entitled "Housing Between Theory, Legislation, and Implementation", (1984), Dr. Abdelbaki Ibrahim acknowledged that despite all the dedicated efforts of local and international organizations as well as the multitude of publications on the subject, the housing problem is still accumulating and getting worse and more intricate in many

** McNamara's farewell address to the annual meetings of the International Monetary Fund and the World Bank, as reported in (Serageldin, 1982).
developing countries seeking the solution which is getting more difficult day after day, until it has in some cases become impossible. He admits that housing is one of the most sensitive and complicated problems due to the interference of various influences and factors, mainly economic, social, political, human, and environmental. The problem is also aggravated with growing demand by the inhabitants and their competition for economic resources. Furthermore, in the developing countries, housing reflects dissimilar concepts, incompatible norms or criteria, obscure aims, and conflicting courses of action. Consequently, the researcher does not reach a conclusion, the legislator finds it difficult to attain an ordinance, the politician cannot realize his aspirations, the sociologist cannot manage to establish the balanced structure and the planner cannot form a clear picture for the future. In the end, the common people continue to be ensnared in the whirlpool of contradiction, opposition, agitation, attempted efforts, hasty decisions, and immature projects, (Ibrahim, 1984).

It has been widely upheld by national government and concerned international organizations that it is a global problem and a social responsibility to facilitate the provision of suitable housing and safe living environments which contribute to health, welfare, productivity and satisfaction of people. Many of the third world central governments have found that it is unrealistic to engage in the actual production and distribution of housing. There seems to be a growing awareness that the most critical role the central government can play in this respect is the initiation of effective housing strategies that lead the way for the overall housing process to move in the required direction for the benefit of all. Therefore, this study appears in some instances to be adaptable for application beyond Egypt.
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List of Interviews

Interviews, by the author with various public officials, planners, administrators and simple lay personalities, were conducted in July 1983 in both Cairo, Egypt and Washington, D. C., USA.

The Cairo interviews were with:

Mr. MohiEldin Al-Nagar, undersecretary of state, for the office of the minister of housing and reconstruction;

Engineer Adel El Zoghby, director general for planning and monitoring in MOHR;

Mr. Mohamed Nor El Din, undersecretary of state for real estate affairs in the agency for new communities affiliated with MOHR;

Dr. Abdel halim el Ramaly, vice president (vice ministre) of the agency for new communities which is presided upon by the minister of housing and reconstruction his excellancy Eng. Hasab-Allah Elkafrawy;

Mr. Morid Yassa in the planning and monitoring office in MOHR;

Engineer Mohammed Hassan, executive director general for the 15th of May new town and head of the new city of Badr organization;

Dr. Mona Sarageldin, consultant to MOHR, a professor at MIT and member of the Aghakan program (Dr. Mona was on an official visit to Egypt);

Mr. Ibrahim Abdullah, director general of economic research in the world bank in Cairo;

Dr. Baher Soliman, architect, planner and assistant professor at Assuit University and consultant to MOHR;

Dr. Abdelmohsen Farahat, architect, planner and landscape architect and chairman of the landscape architecture department at KAAU;

OmAbla, an elderly widow living in shelter housing with her family;

Nagwa, a young mother who had completed middle school and was expected to move to a new public housing unit in Alsalam city.

Washington interviews were with:

Ismail Serag-Eldin, head of the Urban Projects Division for Europe, Middle East and North Africa Region, The World Bank;

Mr. Richard Herbert, Urban Projects Division for Europe, Middle East and North Africa Region, The World Bank;

Mr. Michael Keaveny, project officer for the Helwan Housing and Community Development Project, U.S.A.I.D.
9.0 APPENDIX A GLOSSARY OF TERMS

Adequate housing: Housing that is secure, decent and adequately satisfies the welfare needs of its users and facilitates the fulfillment of their aspirations.

Affordability: The ability to pay for housing.

Building Codes (standards): A document specifying acceptable standards for building construction methods and materials for new or rehabilitated structures. Building codes are designed to establish minimum standards in the erection and composition of buildings to protect human beings who live or work in them from structural collapse, fire, and other hazards (Hipshman, 1977).

Consumption, management and maintenance: The actual use and care of housing and its environment, i.e. management and maintenance of spaces, equipment, structures, services, etc.

Critical Factor: A factor in the situation that is crucial to the choice of the appropriate and effective strategy. A critical factor may relate to the feasibility and desirability of alternative strategies. For example, available resources and the value system within the situation relate directly to feasibility and desirability. Thus it is an impacting force that is most powerful in determining the success or failure of public goals and strategies.

Decent housing: Housing that provides shelter and ensures privacy as a basic need and value, i.e. housing compatible with upheld values and principles of the community of users.

Decision Agenda: It is based on the holistic picture revealed by the analysis. It is comprised of main issues to be addressed, fundamental questions to be answered regarding goals and priorities and apparent strategic options and policy variables with reference to the interaction of those options with the critical factors.

Delapidated conditions: A condition of the lowest physical quality that is unacceptable and unrepairable and therefore necessitates abolition.

Density: The average number of persons, households, or dwelling units within a given area (per unit of acre, square mile, etc.).

Desirable: Socially acceptable and preferable, i.e. compatible with the general value system of society.

Deteriorating conditions: A condition of lowered physical quality that can be upgraded.

Dwelling unit (d.u.): The living quarters (house, apartment, mobile home, condominium) which provide separate and complete living facilities for one household.

Environmental planning and design: Arriving or developing specific proposals for the future use of environmental resources. It is the mediation between physical conditions to achieve desired goals and satisfy sensed needs.

Family: The nucleus of society which has the prime function of nuturant socialization. It is also a semi-closed system of interacting personalities, supposedly, bounded together with love and compassion. A family may be two or more persons, related by blood, marriage, or adoption. A family may, or may not, be a household.
Feasible: Practically attainable (technologically-financially, etc.).

Goal: An articulation of values, formulated in light of identified issues and problems, toward the attainment of which policies and decisions are directed (Steiss, 1975). Goals provide general and philosophical targets that implicitly or explicitly suggest guides to action. They are usually qualitative statements of what ought to be (Steiss, 1976).

Household: A single person, or a group of persons, who share one dwelling unit. A household may, or may not, be a family. (For example, a group of unrelated roommates constitute a household during the time they share a dwelling unit) (Hipshman, 1977).

Housing: In general, "Housing" is the provision of shelter and an environment for the fulfillment of basic human needs. Housing is a need, a product and a process.

Housing codes (standards): Establish minimum occupancy standards for existing housing. They may establish standards for: (1) the facilities to be supplied by the owner; (2) maintenance (3) the number of people who can occupy units of different sizes and room composition (Hipshman, 1977). These are different from building codes.

Housing legislation: Design and articulation of the legal framework for implementation of the adopted strategies and regulation of the interactions of the different actors in the housing process. It may identify specific rights and obligations and establish housing codes.

Informal/Formal housing: Informal housing is built by the private sector but is not in accordance with national standards, local zoning regulations or building codes. Formal housing is that which is built according to national and local standards and regulations.

Model: The model is a simplified explicit representation of a real world situation. It is a close approximation of reality and can provide the basis for the refinement and testing of detailed hypothesis which in turn should lead to further refinement of the model (Strategic Management for the USGS, 1983; and Morris and Winter, 1978).

Objectives: Provide standards of desired performance by which to measure the success of the system and its component activities. They require a greater quantification in order to provide measurement of achievement (Steiss, 1976).

Policy: A guide to present and future decisions, selected in light of given conditions from a number of alternative courses of action.

Policy planning: Formulation of specific policies, including actual decisions designed to carry out the chosen course of action.

Policy programming: Involves a more specific definition of objectives, scheduling commitments, etc.

Poverty line or poverty level: A defined income level below which a family is officially "poor." The poverty line is revised upward as the cost of living rises (Hipshman, 1977).

Production and marketing: The actual provision and supply of housing, i.e. the execution of plans and designs.
Renewal and upgrading: Needed replacement, improvements and modifications to promote better housing and environmental conditions.

Rent/Income ratio: The percentage of income that a family spends for rent.

Shelter: Housing provides protection from the elements and enemies. Therefore it is an absolute necessity for survival and in that respect it is a human right.

Standard housing: Housing of sound structural condition, with all plumbing facilities (bath or shower, flush toilet, and sink) and complete kitchen, for the exclusive use of the occupants, and having direct access. In other words, housing which meets all local building and housing codes (U.S. Census definition).

Strategic planning: Is a developmental subprocess which incurs the identification of goals and broad policies as well as priorities associated with the goals. It differs from conventional planning which is usually concerned with the determination of the most effective or efficient means of achieving pre-set goals.

Strategy: The broadest and most general type of policy, relating goals, objectives and more specific implementation policies.

Subsistence income: Personal, family or household income that barely covers basic survival expenses. Turner specifies that if the person, family or household must spend between 80 and 90 percent of their income on food and fuel alone, to keep well and healthy, then this income is considered subsistence income. Affordability of standard housing may be assessed in terms of multiples of the subsistence income (Turner, 1978).

System: A group of interacting, interrelated, or interdependent elements forming or regarded as forming a collective entity.

Value: An element of a shared symbolic system (referred to as value system), acquired through social learning, which serves as a guide for the selection from among perceived alternatives of orientation (Steiss and Daneke, 1980).

Zoning Ordinance: A legal document regulating the use of land and the structures thereon in such a way as to protect public health, safety, and general welfare.
Immediate Action Proposal (MOHR, USAID et al., 1976)

The report looked briefly at the broad constraints of population, the economy, settlement pattern, and the housing delivery system which was found to be constrained by capital shortages, building material shortages and limited capacities. The report also looked at the national housing requirements and the current housing deficit calculated by the Ministry of Housing and Reconstruction (MOHR) then. The national housing deficit in 1975 was estimated to be 1.5 million units, and 1.6 million additional units were required by 1985. The report estimated that the housing production levels fall far short of the nation's housing needs, and contended that substantial changes appeared to be required in the approach to the provision of housing, that was present then. Certain improvements were advocated by the joint team. Among these are the following:

1. **The reduction of the average cost per unit of housing constructed.**
   Suggestions for accomplishing such reductions were: an overall reduction of the general size of each dwelling unit, better architectural designs, site planning and reduced infra-structure cost. The team strongly recommended the development of new architectural designs for multi-family housing which draw upon the best aspects of traditional Egyptian architecture and allow for expansion by the owners themselves. Thus, MOHR can build smaller units initially at prices which fit the economic capacity of the home buyers and greatly reduce subsidies. The team also suggested that MOHR should reevaluate its minimum standards for room size and consider multi-use rooms in smaller apartments.

2. **Increasing recoveries of the capital investment.** Objectives in this regard are to obtain a better multiplier effect with the money invested, restructuring the recovery system and ensuring that the recovery funds are priced at a rate that avoids decapitalization of the
investment over time. Illustrative alternatives were given in this respect. The team recommended that accurate and detailed financial projections should be prepared by MOHR to test housing policies under consideration and to assess the effect of various subsidies on different income groups and on the national treasury prior to making a commitment to a particular course.

3. The development of an integrated improvement program for the lowest income people: This suggestion consisted of two major parts:

a. upgrading of existing settlements within the city and
b. the provision of sites and services plots for the expansion of low-income settlement. This was considered by the team as an emergency program.

The team emphasized that the major objectives of the housing policy of Egypt should be to make the maximum net addition to the housing stock, which was thought to make a very strong case for using the lowest cost units proposed for various income groups. In this respect, the team discussed some alternative approaches to the provision of housing. These were:

a. The design and erection of 'standard' dwelling units at the lowest cost and making them available to low-income families through huge government subsidies (the approach of the Egyptian Government then).

b. Analysis of the income distribution pattern within the country, division of the population into target groups, the determination of how much families in each group can afford to pay for housing and the total "allowable house price" for each group without subsidy. Accordingly, to determine the type of housing that can be built for that price.

c. Provision of core houses with a lower standard of utilities and smaller land area.
The team deduced that if there was no change in the government housing policy of building standard housing, the actual deficit would be larger. They also believed that rent control should be abolished on any new construction below 90 square meters, to encourage more private initiative in that area, and that the then present rent controls should be revised so that the actual rents paid relate to monthly incomes to avoid unnecessary subsidies.

The team also recommended the development of an operational land policy. This stemmed from the observation that there were no working overall land development controls being utilized in Egypt, which is flexible and can respond directly to the needs in the Egyptian context.

Concerning building materials, the team recommended increasingly the supply, the gradual phasing out of government controls of the prices of building materials, supposedly to encourage the private sector to expand production and start new factories, developing a program to improve the quality of locally produced items and importation of better machinery and technical advice. They also recommended that MOHR should conduct a comparative study of imported and local building materials to ensure that imports were kept at an absolute minimum and did not compete with locally produced items (using penalty of heavy duties).

The team encouraged the continuation of training programs established by the government to produce enough skilled labor to meet domestic needs in addition to exportation. They also advocated increased design and construction efficiency through technical exchange in the fields of dwelling design, site planning, new uses of building materials and in the general field of construction management, Informal Housing in Egypt, (USAID, 1982).

The subject of the study was considered by the investigators a very important aspect of the Egyptian housing situation, if not the center of the situation, though informal housing occupies a nebulous and poorly documented role. Informal housing is illegal housing, generally built
in contravention of either zoning laws (forbidding residential construction on agricultural land) or building codes and hence unregistered. The objective of the study was to document the role of the informal sector in quantitative and qualitative terms; to examine characteristics of the individuals who supply and occupy it, and processes governing its supply and demand; to evaluate its major characteristics in terms of housing and neighborhood attributes and access to utilities and infrastructure; and examine the policy implications of findings. The study focussed on Cairo and Beni Suef. The housing and land use problems in those two cities are supposedly typical of those in other Egyptian cities, with rapidly rising housing costs, perceived housing shortages, shortfalls in infrastructure, and conversion of agricultural land to urban uses. Thus, the observations made in the study were considered of a more general applicability than simply in the two cities that were studied. Data collected for the survey included an update of the 1976 census in selected areas of the two cities, detailed occupant surveys and in depth interviews with the supply side participants in the housing market.

Among the major findings of the study were the following:

1. The bulk of housing currently supplied in Egypt is informal housing. Of units built between 1970 and 1981, 84 percent in Cairo and 91 percent in Bani Suef were estimated to have been informal.

2. The quantitative contribution of the informal sector has been essential in maintaining disparity between increases in population and increases in the housing stock. Much of that expansion has come through vertical expansion of existing buildings, a particular feature of informal housing.

3. Informal housing is similar in many ways to formal housing which results in roughly comparable levels of expressed satisfaction with their dwelling units by formal and informal occupants.
4. New Informal housing, while not of comparable quality to new formal housing, is nevertheless of far better quality than older existing housing.

5. Informal housing is significantly less well supplied with infrastructure than formal housing.

6. Attempts to control the informal sector have largely not succeeded. Such attempts included denial of infrastructure to informal areas, fines, harassment by authorities, and occasional demolition of informal buildings. Few, if any, households express any anxiety about the consequences of having failed to register land or buildings, or having failed to obtain building permit. Informal areas continue to expand into agricultural land at a high rate.

7. The informal sector appears to be affected by general market conditions in much the same way as does the formal sector. Examples of these conditions include rates of change in building costs and increases in land cost.

8. Housing cost increases that have occurred recently have placed an extreme burden on households wishing to become owners or renters for the first time or to change their place of residence; low income, large families have been most seriously affected by these changes. Housing expenditure for households in the lower income quartile doubled from about 15 percent of income to about 30 percent of income, over the past several years. This places low-income households in an extremely precarious financial position with food consumption requiring between 60 and 70 percent of their income. Similarly, large families food requirements leave them with less disposable income for housing and other goods.

9. The most significant factor responsible for housing cost increase in recent years has been increases in land costs, although costs of construction materials and labor have also increased rapidly. Land
price increases at compound annual rates of from 25 to 40 percent have
not been uncommon in Cairo during the past decade. Cost of building
materials increased less rapidly (at 15 to 20 percent) but have nev-
evertheless outpaced general inflation.

Recommendations have been made in the study concerning (1) the planning
process, (2) the legal and administrative procedures, (3) housing fi-
nance, and (4) the building process.

The planning process:

- Expanding technical assistance to residents of informal areas in
areas undergoing rapid building and modification to avoid poten-
tial problems of structural failure and make efficient use of
building resources.

- Providing utilities and other infra-structure to informal housing
areas already in existence while at the same time pursuing land
development and servicing in vacant peripheral areas.

- Modifying current infra-structure pricing and financing policies
to achieve greater cost recovery and to permit possible sur-
pluses, so generated, to be used for further utility and service
extensions and upgrading of existing systems.

Legal and administrative procedures:

- Undertaking a policy of more selective and vigorous enforcement
of building code provisions. Directing enforcement activities
toward avoiding catastrophic health and safety failures rather
than increasing enforcement against informal housing per se.

- Considering returning subdivision control in agricultural areas
(particularly within city cordons) to local level. This is ac-
accompanied by the belief that residential or other development on
marginal agricultural land is economically rational and a potential source of local revenue.

Housing Finance:
Taking action on both the supply and demand sides of the housing market to put downward pressure on housing and land prices, particularly for low and moderate income families. For example, considering direct cash payments to target group households and modifying the rent control law to stimulate private construction, particularly of rental housing.


The report was prepared by a group of professors from the Faculty of Commerce in the University and reviewed in the Ahram newspaper. The report included an economic diagnosis of the housing crisis, recommendations and proposed solutions, a brief summary follows.

I. The economic diagnosis of the housing crisis The following factors were discussed:

A. The rise or general increase in prices and interest rate were considered major factors in the crisis. These were found to be tied to the jump in the percentage of imports and exports which implied an increased effect of the international environment on the Egyptian economy. Ascending directions of interest rate were viewed as the most dangerous factor in this respect.

B. The spread of non-productive activities (in the seventies) such as the importation and sale of consumptive goods that do not meet an urgent need, as well as dealings in the black market have shielded private sector investment from the housing field

**This belief does not seem to reflect complete awareness of Egypt's environmental problems, at the top of which is the rapid and extensive erosion of the agricultural base.**
which represented the traditional investment of Egyptians outside of the agricultural field. The above mentioned activities have also left behind high income groups that formed a demand on luxury housing and office buildings which in turn changed the housing market in response to the new buying powers in society.

C. The imbalance in the income structure of groups other than low income groups.

D. The rise in the cost of housing which was affected by the rise in land and building prices and inability of local production to meet increasing needs.

E. The great rise in construction cost in the private sector, which has made construction cost in the public sector even higher than in the private sector. (The practice of subcontracting public sector operations to private sector companies and contractors has contributed to this situation).

F. The increase in the rates of migration of construction workers to other countries has led to both the decrease in manpower and increase in wages. This in turn led to the expansion of the private sector in above average housing and avoidance of economic housing.

II. Observations: The report also noted a discrepancy in the results of different estimates of the national housing demand until the year 2000. The Ministry of Housing estimated the demand to be 3.6 million housing units, according to the United Nations rates of 7 units/thousand of the population. While the consultation (shura) council estimated 4.4 million housing units, taking into consideration the replacement of dilapidated units.

Another important observation was that 14% of the increase in housing units, was in economic housing, while this type of housing represents 80% of the need.

The report compared public and private sector investment in housing as a percentage of the total stable investment. The percentage was
28 between 1952 and 1960. Between 1977 and 1981-82 it was 10.1% and between 1982-83 and 1986-87 it is 13.3%. While the prevalent percentage in developing countries is 20.

III. **Recommendations and proposed solutions:** This part of the study was directed towards the development of the approach to the solution of the housing problem so that the short term urgent solutions constitute the initial cycle in the chain of radical long term solutions, Figure 49.

The recommendations in this part relate the following topics:

a. The working approach for the realization of the goals of the national housing policy.

b. The organized structure for housing.

c. Resolutions related to the agencies of the national housing project.

d. The national strategy for the resolution of the problem. Four axes were delineated to guide policies and channel solutions. The four axes were:

1) Land and population distribution

2) Engineering capacities (labor, materials and units, construction, utilities and equipment)

3) Financial capacities

4) Organization, management, and legislation.

The success of the national strategy was seen to depend on evolutionary and integrated organization of planning agencies whether social, economic or urban, and their dynamic relationships as well as the extent of the development of techniques for the application of plans and projects on the national, regional and local levels.

'* I want a home'/*Orido Maskanan*. Hanna, Cairo, 1978

In this book Dr. Milad Hanna introduced the housing problem, its symptoms and social impact through sketchy case descriptions of the discomfort and suffering of people due to the problem. He then reviewed the evolution of the problem in terms of magnitude and pointed out important factors in the assessment of housing need. The factors were: natural increase
The organizational structure for the realization of the national housing policy, (Ain Shams University Report, 1984).
in population, migration, state of buildings and durability, and mobility among districts and cities.

Hanna also described and classified the current supply in terms of housing strata and a type of housing feudalism. He indicated that the key to the solution of the problem is seeking more units and less cost. In order to achieve that, certain major elements must be controlled. These are: land, materials, technical organization, contracting and construction systems, man power and finance.

In a discussion of housing and political economics, Hanna emphasized that housing is an investment service that has an impact on productivity. However, government resources are inadequate to meet the increasing demand for low-income housing and a very delicate balance has to be sought regarding investment in the productive fields of agriculture, industry etc. and the range of services including education, health and housing. In light of this, Hanna advocates turning to new sources of revenue mainly:

1. A portion of an imposed increase on older housing rents,
2. Real estate reform based on rationalization, optimization and redistributitional policies, and
3. Taxes imposed on occupants of luxury housing based on the number of rooms; fixtures, finishing and number of bathrooms and number of occupants.

Changing Pattern of Housing in Cairo by Dr. Abou Zeid Rageh, Chairman of the General Organization of Housing, Building and Planning Research, Cairo, September 1984

The report depicted the changing housing pattern in Cairo during the three decades of the Fifties, Sixties, and Seventies. The following conclusions were made:

• Change was brought about by dynamic socioeconomic forces let loose since the mid-century.
• Change was controlled and directed from within by clear ecological limitations and constraints.

• Dynamic changes were so rapid that all attempts to contain or even guide them failed; possibly because previous planning attempts lacked proper understanding of the nature of that change and consequently were unable to catch up with it.

• The change in the structure of Cairo did not only rate the form of building new neighborhoods and new communities around the limits of the city, but also each neighborhood went through a fundamental internal transformation in its character and commercial and professional activities found their way through these areas which were once exclusively residential neighborhoods, especially in the literal instance of land use ordinance and lack of observation of the city building code.

• The choice is critical whether to leave the forces of change to work on their own or to develop an effective processing of urban planning worth of the long history of Cairo.
11.0 APPENDIX C POINTS OF CLARIFICATION FOR INTERVIEWS

- The 1979 national housing plan's estimate of housing deficit and need until the year 2000, current and expected rates of housing production.
- Census information on average family size at the various income levels.
- Land price developments at various locations in and around the Capital.
- Developments in the cost of average housing.
- Specifications and definitions of the various housing types or ratings as luxury, above average, average, and economic housing as well as administrative housing. The average cost per square meter for each of these types.
- Rent estimation committees, organizational structure and regulations.
- Loans and facilities of the general agency of cooperative housing, the fund for real estate development, and housing bonds.
- Privileges offered to housing companies and corporations.
- The USAID community development project and other international cooperation projects in the field of housing.
The following discussion is limited to the values that have direct bearing on housing as a process and housing as a product within the Egyptian Context, and with particular reference to Islamic values as enshrined in the Holy Koran. In this respect at least four values can be identified.

1. Freedom (Al-Horia)
2. Privacy (Al-Khososia)
3. Purity (Al-Tahara)
4. Neighborly cohesion

1. Freedom (Al-Horia): Freedom of thought, choice, and action as well as freedom to enjoy the pleasures of God's creation within the limits of 'taybat' (good things). This stems from the belief that man's Sovereign Master and Cherisher is God, therefore, absolute submission is to God alone, even in matters of faith no force must be used to compel people to believe. "Let there be no compulsion in religion: truth stands out clear from error: whoever rejects evil and believes in God hath grasped the most trust-worthy handhold, that never breaks, and God hears and knows all things." (Meaning of Verse 256, Chapter 2 in the Holy Koran).

In the view of Islam Freedom is not just a value but also a human right that must be safeguarded by the state regardless of race, color, religion, language, nationality, or social status. (Sebek, 1981).

Freedom in this context also applies to choice of environment and place of residence and movement without obstacles. This may be compared to 'open housing' policies in western countries.

2. Privacy (Al-Khososia): The value and concept of privacy in Islam has a direct impact on housing design, space standards and crowding definitions. Individual (personal) and familiar privacy is highly
valued in Islam. Yusuf Ali explains that conventions of propriety and privacy are essential to a refined life of goodness and purity; and that the principle of asking respectful permission and exchanging salutation, before entering a home, other than one's own - ensures privacy without exclusiveness and friendliness without undue familiarity. (Ali, 1975).

O you who believe! enter not houses other than your own, until ye have asked permission and saluted those in them: that is best for you, in order that you may heed (what is seemly). If ye find no one in the house, enter not until permission is given to you: if you are asked to go back, go back: that makes greater purity for themselves: and God knows well all that you do. It is no fault on your part to enter houses not used for living in, which serve some (other) use for you: and God has knowledge of what you reveal and what you conceal.

(H. Koran, Chapter 24, Verses 27, 28, 29).

Even the landlord is supposed to ask permission before entering the tenants private quarters.

Within the family circle adult individual privacy is also very highly valued and even children should take permission to enter an adults room during certain hours: before the morning prayer, 2) at noon when adults are changing their clothes to rest, 3) and after the late night prayer. (H. Koran, Chapter 24, Verses 59-59).

Women are also asked to be modestly dressed and cover their hair and body except when they are among 'Maharem' which are close relatives like father, brother, husband, son, uncle, father-in-law. Privacy is also extended to personal integrity spying or inquiring too curiously into other people's affairs or speaking ill of each other behind their backs is absolutely abhored in Islam. (H. Koran, Chapter 25 Verse 12).

Believers are also asked to lower their gaze and not to stare at others and intrude on their privacy.

3. 'Al-Tahara'/Purity: 'Tahara' means both spiritual and physical purity. Physical purity includes purity of body, clothing and place. Availability of and accessibility to pure water is basic and essential not just for drinking purposes but for purification and sanitary
purposes. Performing 'salat', prayer, is conditioned by purity and prayer is proceeded by 'Wodo', washing, if water is available.

This means that the presence of pure water is absolutely important in a moslem house. Preference would be for a private water supply and sanitary facilities within every dwelling unit. If circumstances prevent that due to physical or economic constraints common water supply and sanitary facilities may be shared by several families. 'Suppose one of you had a river at his door and he, washed from it five times day would this leave any of his impurity...' (meaning of saying of Prophet Mohammed, peace be upon him).

4. Neighborly Cohesion: Neighborly ties and mutual caring and support are extremely valued in Islam. In many verses of the Koran and Sayings of Prophet Mohammed (peace be upon him), believers were urged to care for their neighbors. 'He is not one of us, who sleeps satisfied while his neighbor is hungry'.

Serve God, and join not any partners with Him, and do good - to parents, kinsfolk, orphans, those in need, neighbors who are near, neighbors who are strangers, the companion by your side, the way-fairer (you meet), and what your right hands possess. For God loves, not the arrogant, the vainglorious. (H. Koran, Chapter 4, Verse 36).

Janet Abu Lughod has identified the special relationship that obtained between proximate neighbors, as a fundamental characteristic of Islamic law which created and sustained the 'Islamic city'. She further noted that the accretion of legal precedents in Islamic cities created a highly differentiated set of property rights whose exercise was heavily contingent upon relationships codified by law such as those which existed between families sharing a common wall between dwelling and among families sharing a common access or easement. There were even informal agreements between adjacent co-residents to mutually restrict each other's property usage in such a way that urban development would not infringe on the privacy or property rights of each other (AbuLughod, Existence, 1980).
In strategic planning, the purpose of evaluation is the selection of the optimum strategy, or the strategy which is expected to be most effective, given the circumstances and anticipated conditions, as well as lessons learned from past experience.

It may be easy to contend that the basic goal of any public development strategy, is to effect change that is congruent with the public interest, but it is not as easy to agree on a definition of public interest and related criteria of evaluation. In the strategic management literature some of the general evaluation criteria relate to the following:

1. Public and political acceptability
2. Effectiveness and human need relatedness
3. Technical and financial feasibility
4. Compatibility among objectives
5. Viability for possible future contingencies
6. Being positive, clear and concise.

(College of Architecture and Urban Studies, 1983)

World Bank discussions of strategies to meet basic needs for shelter emphasized the importance of the social acceptability of solutions. The experience of the World Bank in various countries has shown that problems lie neither in technical feasibility nor in costs, but rather, in the social acceptability of the 'solution', (Churchill et al 1980).

Criteria that have been used by the World Bank in the evaluation of shelter programs for the urban poor may also through some light on the subject matter and help in the selection of reasonable criteria for the evaluation of urban housing strategies in general. This set includes:

1. Impacts on the housing stock
2. Affordability of projects to the urban poor - extent of effective penetration to low income groups
3. Accessibility of projects to the urban poor
4. Impacts on socio-economic conditions of participants
5. Efficiency of shelter programs
6. Problems in implementation
7. Observation about the target populations (Keane and Parris, 1982)
Table 11 presents the composite chronology of national urban housing policies and major environmental changes and events.
Table 11 Composite Chronology of National Urban Housing Policies and Major Environmental Changes and Events.

<table>
<thead>
<tr>
<th>Era</th>
<th>National Urban Housing Policies, Related Plans and Legislation</th>
<th>Major Environmental Changes and Events</th>
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<tbody>
<tr>
<td>Before 1952</td>
<td><strong>1941 1945 Marshal orders and 1947 Law No. 121</strong> Rent freeze and denying owners the right to evict occupants (tenants).</td>
<td>- Continued British occupation of Egypt</td>
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<td><strong>1951 Law No. 221:</strong> General tax law including taxes on rents</td>
<td>- World War II</td>
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<td><strong>1952 Law No. 199:</strong> Reducing housing rents by 15% of the contract rent for the housing units constructed since January 1st 1944 until September 18th 1952.</td>
<td>- Palestine war (1948)</td>
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<td><strong>1954 Law No. 56:</strong> Real estate tax law.</td>
<td>- Fudalism</td>
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<td>- Capitalism</td>
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<td>- Monarchy</td>
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<td>- Political parties' conflict</td>
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<td>- Agriculture based economy</td>
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<td>- Limited newborn national industry</td>
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<td>- Sub-urbanization</td>
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<td></td>
<td></td>
<td>- Struggle for independence and social/political reform</td>
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<tr>
<td>The 1952 Revolution</td>
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<td>- Revolution</td>
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<td>- Exile of the King</td>
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<td>- Declaration of the Egyptian Republic</td>
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<td>- Declaration of revolutionary goals:</td>
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<td>Era</td>
<td>National Urban Housing Policies, Related Plans and Legislation</td>
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<tr>
<td>- 1956 Law No. 277:</td>
<td>Addition of 2.5% defence tax on yearly rent.</td>
<td>- The triple aggression on Egypt/Suez war</td>
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<tr>
<td>- 1958 Law No. 55:</td>
<td>Reducing rents of units built between 1952 and 1958 by 20% of the contracted rental values.</td>
<td>- Union with Syria</td>
</tr>
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<td>- 1960 The 1st 5 year Housing Plan</td>
<td>Appropriation of 140 million Egyptian pounds to provide 300,000 new housing units.</td>
<td>- National central planning for development</td>
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<tr>
<td>- 1961 Law No. 169:</td>
<td>Exempting occupants from real estate taxes which amounted to 13.7% of the rent.</td>
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### Table 11 (Continued)

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<th>Era</th>
<th>National Urban Housing Policies, Related Plans and Legislation</th>
<th>Major Environmental Changes and Events</th>
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| 1962 and Experimenting with Socialism | - **1962 Law No. 46:**
  Limiting the rental value of a housing unit to an annual return of 5% of the value of the land and 8% of the value of the buildings. | - Socialistic transformation
  The July 1961 Socialistic Resolutions complete nationalization of major economic establishments, partial nationalization of some economic establishments. Reduction of ownership limit (of farm land) to 100 acres. |
|                            | - **1962 Law No. 108:**
  Doubling the Defence tax.                                                                                                      | - Industrialization & development program.                                                               |
|                            | - **1965 Law No. 7:**
  Reducing rents of all housing units constructed since 1944 up to October 1961 by another 20% and units constructed after October 5th, 1961 by 35% while exempting all units from the real estate tax. | - Building the high dam of Aswan.                                                                       |
Table 11 (Continued)

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<th>Era</th>
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<th>Major Environmental Changes and Events</th>
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<tbody>
<tr>
<td>1967 - 1973 State of War</td>
<td>- <strong>1965 Law No. 51:</strong> &lt;br&gt; - <strong>1965 The 2nd 5 year Housing Plan</strong> &lt;br&gt; Public housing for limited and moderate income people - 'economic housing units' built by the Government with at least 34% of the units designated for Cairo. Cairo governorate building and marketing high rise condominiums overlooking the Nile.</td>
<td>- The Arab-Israeli War of June 1967 &lt;br&gt; - Israeli occupation of Arab lands: Sinai, Gaza, the West Bank and Golan Heights. &lt;br&gt; - Israeli seizure of Egyptian oil fields and loss of an important national resource.</td>
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<td>- <strong>1967 Law No. 38</strong> &lt;br&gt; Allowing local councils to take a fee that does not exceed 2% of the rental value for general cleanliness purposes.</td>
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<td>Era</td>
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<td>- 1967 Law No. 23 &amp; 1968 Law No. 32:</td>
<td>- Continued biligrancy and extension of hostilities through Israeli air-raids on Egyptian cities beyond the Suez zone.</td>
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<td></td>
<td>Addition of national security tax amounting to 2% of the yearly rent for units that have an average monthly rent/room of 3 Egyptian pounds and 4% if the average monthly rent/room exceeded 3 Egyptian pounds.</td>
<td>- Evacuation of the Canal zone and the spreading of refugees on the delta governorates, Cairo and Alexandria.</td>
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<td></td>
<td>- 1969 Formation of the Supreme Committee for housing and urbanization headed by the Minister of Housing for the allocation of investments formulating the general policies for rent and ownership, basis for land sale and dispention of public real estate.</td>
<td>- Subsidy and economic/relief aid from Arab countries.</td>
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<td></td>
<td>- 1972 Ministry of Housing proposal for a ten year plan to build 2 &amp; 2/3 million new housing units by both the public and private sector and the allocation of 1900 million LE for that purpose.</td>
<td>- September 1970 crisis and blood shed in Jordan - Cairo Arab Summit - Death of President Nasser - Election of President Saddat</td>
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<th>Era</th>
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<th>Major Environmental Changes and Events</th>
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<tbody>
<tr>
<td>Post 1973 Peace and Open-Door Policy</td>
<td>- 1973 Law No. 118:</td>
<td>- Arab Israeli War of October 1973 crossing the Suez Canal and liberating part of Sinai</td>
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<tr>
<td></td>
<td>- Gihad Tax of 4% of the net rental value to be paid by owners of real estate with an average rent per room exceeding 3 LE in building constructed or occupied for the 1st time after the 5th of Nov. 1961.</td>
<td>- Sieze fire and disengagements agreements.</td>
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<td>- Planning to construct 3 new towns to relieve the pressure on the crowded capital and other cities.</td>
<td>- Negotiations for peace.</td>
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<td></td>
<td>- Mobilization of expertise and resources for the reconstruction of the Canal zone.</td>
<td>- Opening up the Suez Canal.</td>
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<td>- Return of refugees to the Canal Zone.</td>
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<td>- The open door policy and encouragement of foreign investment and opening up commercial exchange between Egypt and other countries, to the private sector.</td>
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<td>- 1977 Law No. 49:</td>
<td>- A. Saddat's visit to Jerusalem</td>
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<td>Designating the rental value not to exceed 7% of the value of</td>
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<td>the land and buildings with the exception of high quality</td>
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<td>Designating a maximum of 10% of all building license for</td>
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<td>Specifying maintenance obligations.</td>
<td>- Return of most of Sinai.</td>
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<td>Giving local authorities the right to complete the</td>
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<td>construction and prepare a building for use, in case the</td>
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<td>owner fails to complete it, the right to market these units</td>
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<td>(rent or sale) and regaining the cost of completion.</td>
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<td><strong>1981 Law No. 136:</strong></td>
<td><strong>Assassination of President Sadat; Election of President Mobarak; Completion of Israeli withdrawal from Sinai.</strong></td>
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<td>Affirmation of the rental value not to exceed 7% of the value of land and buildings except for high quality housing (to be specified by the Ministry of Housing).</td>
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<td>Specifying that not less than 2/3 of the area of the building should be rented as vacant units and the rest for ownership (condominums) or for renting as furnished units.</td>
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<td>Allowing the owner to receive a 2 year advance payment.</td>
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<td>Designation of the responsibility of maintenance for several classes of buildings and allowing a rent raise to pay for maintenance and repair for purposes other than housing.</td>
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<td>Facilitating government loans for repair and upgrading.</td>
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<td>Exempting owners and renters of all buildings occupied for the purpose of housing, from all basic real estate and additional taxes, with the exception of high quality buildings.</td>
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APPENDIX G A GLIMPSE ON THE HUMAN DIMENSION OF THE HOUSING SITUATION

Two informal interviews were made with ordinary women whom I happened to know through the Zakkat committee in which I participate. The housing situation of these two women and their families, I believe, is representative of many other low income Egyptian families living in the crowded capital. These interviews may help illustrate the human dimensions of the housing crisis in Egypt.

The first interview was with Om Abla, a simple elderly widow who lost her home seven years ago. Om Abla is well over 60 years old (almost 70), her husband died more than 10 years ago. Her late husband was a jobless invalid and she earned the family's living as a washer woman. She was living in a one room home in Al-Gamalya, a popular quarter in Cairo, with six of her children. The children, two boys and four girls, grew up, five of them got married and had two or more children. One of the daughters is divorced and lives with her mother. One son who is a carpenter lost his wife a few years ago and left his children in his mother's care. Now Om Abla lives with her divorced daughter and four grandchildren. The unmarried son who was severely wounded in the war and gets regular medical care in a Cairo hospital comes to visit and stops for a few nights with his mother. The room they had in Gamalia was cozy and neat and they took pride in caring for it despite the fact that they were overcrowded.

Seven years ago the building in which they had this room collapsed. They lived for two years in tents provided by the government as temporary shelter for the homeless, later they were transferred to an apartment which they shared with another family but had a private room which they could lock. This was in another part of Cairo. After another two years they were again transferred to what is called "shelter housing" in Helwan, a suburb to the south of Cairo. Since this female-headed family could not afford to pay the 12.5 L.E. rent for a publicly owned apartment, they were assigned a hall in a one room apartment which they shared with another unrelated family. Every three such shelter units accommodating six families share a common bath room. These shelter units are new additions...
built on the sixth floor, i.e., the roof of five story public housing walk up blocks built in the 1960s, Figure 50.

Om Abla and her family are extremely uncomfortable with lack of privacy resulting from such an arrangement. She prefers the life in the tent to such a situation and believes that lack of privacy is a demoralizing factor. Other families are suffering, endless disputes take place and every now and then Om Abla is called to the police station as a witness. She spends two hours in public transportation to go once a week to a familiar Zakkat committee in Cairo to get a weekly allowance to help her and her family survive. Om Abla has been promised a new, private apartment in the nearby new city by the 15th of May, if she could raise enough money to pay the monthly rent of 12.5 L.E. (equivalent to about $11), (Cairo, July 1983).

The second interview was with Nagwa, a young married woman who completed middle school. Nagwa lived with her husband and four children in a room under the stairway of an old building in Babel Sheria, an old popular quarter in Cairo.

All of a sudden that old building crumbled. Luckily they were not hurt. For a while they lived in a tent until her mother-in-law accepted to let them stay with her. They applied to the governate of Cairo to be assigned a public housing unit. They were assigned a new unit in "Al Salam" new city near Cairo airport. Nagwa is looking forward to the move. She feels that having an apartment of their own will enable them to improve their economic situation since she hopes that the Zakkaat committee who help take care of her needs could help her husband start a small shoe-making workshop or business in their new home. The Zakkaat committee has already given her some free interest loan to pay the required advance payment for the apartment. She can repay it by installments whenever she can afford to do so. Nagwa's husband presently works in a printing press and earns about 4 L.E./month. The monthly rent of the new apartment would be 18 L.E. which is about 40 percent of his monthly income. Nagwa seeks help from the Zakkaat committee to cover medical expenses, clothing and

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**Zakkat is a 2.5 percent of annual savings that exceed a certain specified limit and which a Moslem is commanded to give to the needy. (Cairo, July 1983)**
recent additions of shelter housing on the roof of public housing built in Helwan in the sixties.

Figure 50. Two unrelated families sharing one shelter unit.
sometimes food. Nagwa looks for the day when they could stand on their feet and even be able to aid other needy families and give "Zakkat" themselves.
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