

The housing deficit in the city of Baghdad and the future need

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Abstract

The research deal with the housing deficit of its quantitative and qualitative type in the city of Baghdad due to the economic and political situation in the country. In light of the increase in population, low rates of housing construction, and the absence of housing policy in the housing sector by the state due to the abolition of the public housing corporation, The apparent increase in population and the light rate of families were the main reason for the accumulation of housing deficits in Iraqi cities especially city of Baghdad; the research aims to study and analyze the housing deficit and urban planning to provide housing and revitalize the role of the government sector in finding appropriate solutions to the problem of housing deficit by setting the necessary strategies for it. The research included the theoretical framework with three investigations, as the first topic covered the housing crisis in Iraq. The second topic also included the housing deficit in Baghdad, and the third topic covered the housing policy and the future need for housing in the city of Baghdad. The research concluded with the result, the most important of which is the lack of planning in the housing sector with the rates of population increase, and family and residential fission led to pressure on community services. As for the most important proposals, they are encouraging the ministries and government departments related to the problem of housing, such as the ministry of construction and housing and the urban planning department, to establish small cities outside the basic design of the satellite cities with manageable monthly installments with available guarantees.

Keywords: housing deficit, the city of Baghdad, future need.

1- Introduction

The housing problem is one of the problems facing large cities, where housing occupies particular importance for people and families, and housing comes after food and clothing. In the house where the individual takes freedom, warmth, and expression of his personality and desires inside the home, the phenomenon of rapid and unplanned urbanization has created crises and problems that have introduced many problems in many cities as a result of immigrants into cities, which has created unplanned land use and encroachment on the city's basic design. From the results of the comprehensive survey in Iraq in 2014, it was found that the number of slums, except for the Kurdistan region, reached (346881) houses, at a rate of (7.3%), and the governorate of Baghdad recorded a percentage of (33.4%) of the total random housing, which generated pressure on community services. This led to a decline in services and low service efficiency and adequacy, and this reflected negatively on the services provided to the community. The Ministry of Construction promised a study on the housing problem of the crisis to the United Nations Human Settlements Program to study foreign companies that have developed alternatives and solutions to the housing problem for the city of Baghdad, and it will try to research this. The study is to address the research problem by determining the housing need in terms of quantity and quality in order to know the population distribution and housing need in the Iraqi city.

2- Methodology

2-1 Research problem : The problem of the housing deficit in Baghdad is the result of the accumulation of many years of neglect in light of the population increase that has led to the formation of new families, which increases the demand for housing units, which led to the emergence of random patterns that led to the override of the basic design as a result of the high cost of construction and the weakness of urban planning to keep pace with development. Large population size, resulting in a deformation of civil morphology.

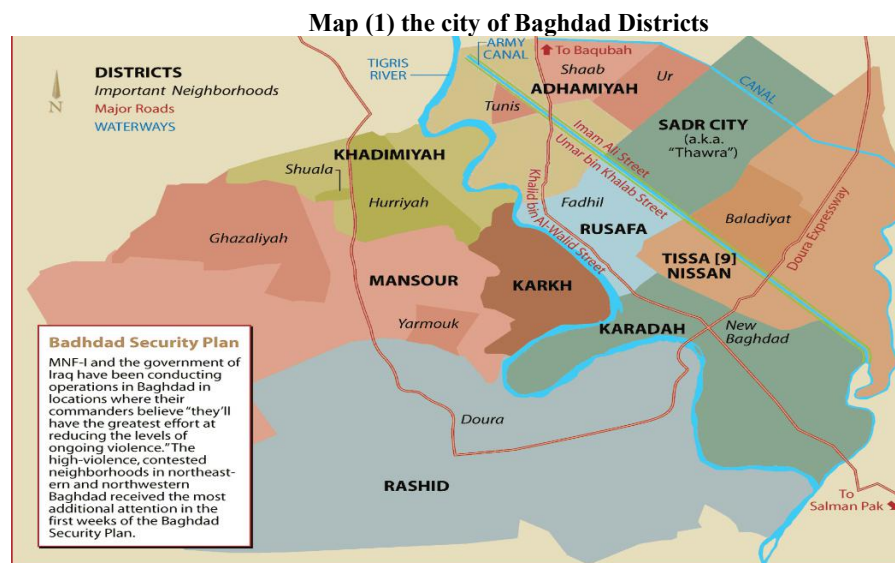
2-2 Research objectives: The research aims to study and analyze the housing deficit in the city of Baghdad in light of the population increase through urban planning to provide housing to all members of society and to activate the role of the government sector in finding solutions by developing the necessary strategies for them.

2-3 Research hypotheses: Achieving a kind of balance between the population increase and the expansion of the city's area by creating hubs for expansion in the edges of the (urban city), Baghdad, to reduce the housing deficit, housing division, random housing, and the provision of community services.

2-4 the limits of spatial and temporal research:

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- **Spatial limits:** The boundaries of the city of Baghdad are represented by its fourteen Districts illustrated by the necessary map (1) prepared in 2020 and which indicated that the area of the city of Baghdad is (4,555) km².
- **Temporal limits:** The year of research preparation is 2020.



Source: Baghdad Municipality, Basic Design Department, Geographical Systems Division, at a scale of 1: 5000, 2019.

2-5 Research outline: The research includes three axes: the first is the housing crisis in Iraq, the second is the population deficit in Baghdad, and finally: housing policy and the future need for housing in the city Baghdad.

3- The housing crisis in Iraq

3-1 A brief history of the housing crisis in Iraq

The housing crisis in Iraq came from previous accumulations that began in the mid-fifties, and the housing problem is one of the intractable problems. A study prepared by the Doxiades Foundation in (1956) was presented on establishing some housing complexes in the city of Baghdad and the provincial centers, and a future housing program was developed. The families in need of housing were estimated as (453 thousand families to a housing unit and (380) thousand families their homes need maintenance and restoration, and in the seventies, the housing deficit reached (373) housing units (Mutlaq, 2009). Because of the war conditions that Iraq fought, the housing crisis increased in (1977), when The housing deficit reached (373195) housing units at a rate of (20%). In 1987 the housing deficit amounted to (392,114) housing units at a rate of (18%). In 1997 the residential deficit reached (353813) housing units at a rate of (14%), and in general (2009), the housing deficit reached (359,681) housing units at a rate of (7%), Table (1).

Table (1) the number of families, housing units, population, total deficit and its percentage of families and the rate of housing units per (1000) people for the period (1977-2009)

Year	Total No. of families	The total No. of housing units	Total housing	Residential deficit	Average of total housing units per (1000) people	The rate of new housing units per (1000) people	The housing deficit percentage of the family%
1977	1835083	1461888	12000497	373195	122	68	20
1987	2231231	1839117	16335199	392114	113	97	18
1997	2494307	2140494	19082566	353813	112	100	14
2009	4696265	4810555	32105000	359681	149	135	7

Source: (Fadel, 2014).

3-2 General concepts of the housing deficit

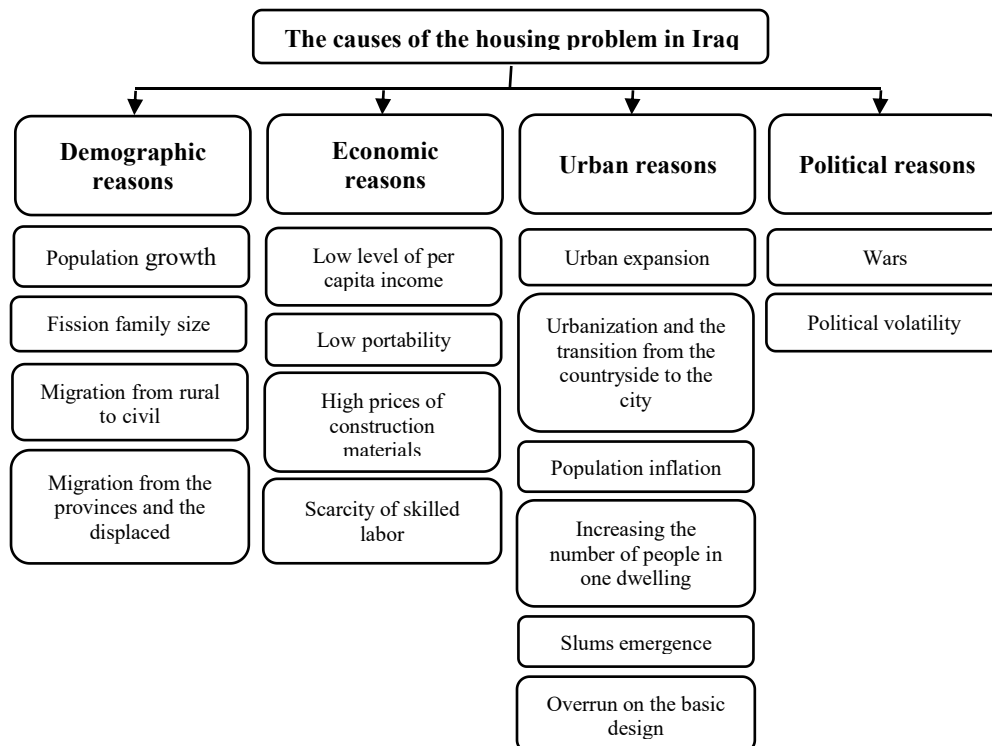
- Housing is accommodation, openness, reassurance, comfort, and protection for the family from natural conditions (Rain and Heat) (Al-Azzawi, 2004).
- Housing deficit: The difference between the number of families and the number of dwellings in time and place, or if the dwellings are unable to accommodate families.

- Housing deficit: The discrepancy between the actual housing situation and the required standards of health, privacy, and the development of living conditions for the usual family, as well as the housing deficit and the natural increase in the population (Nasser, 1999).
- Housing deficit: The difference between the number of families that need housing and the sufficient housing stock available in a certain period (Hassoun, 2005).

3-3 The causes of the housing problem in Iraq

Iraq is witnessing a shortage in the number of housing units. The state's procedures for providing housing units were not sufficient to fill the deficiency that has accumulated over the years and is matched by a rise in population growth, and the political and economic conditions that Iraq went through helped the deterioration of the housing situation, the emergence of slums and the overriding of the basic design of cities Al-Iraqiya, all of which led to the emergence of the housing problem in Iraq, as shown in Figure (1).

Figure (1): The causes of the housing problem in Iraq



Source: From the researcher's work, based on (Al Shawak, 2008).

3-4 the housing deficit in Iraq

The housing deficit is the inequality between the number of families and the number of housing units that they occupy during a limited period, regardless of whether the family owns or leases the housing unit. This phenomenon is the essence of the housing problem that the city suffers today due to the increase in the number of families and there is a direct relationship between the increase. The number of families and the demand for housing (Al-Hamdan, 1999), and the housing deficit is divided into two kinds:

3-4-1 Quantitative housing deficit:

It is the difference between the number of families and the number of housing units that exist. The data of the Central Bureau of Statistics in 1977 indicate that the housing deficit reached in Iraq (364,141) housing units and the size of the housing deficit in (1987) in the country (364,663) housing units, and in a general census (1997). The housing deficit amounted to (353813) housing units. In 2009 estimates, the housing deficit amounted to (1494632) housing units Table (2).

Table (2) the quantitative housing deficit in Iraq

Year	Population No.	No. of households	No. of housing units	Residential deficit
1977	12000	1835083	183.5083	364141
1987	1635	2203870	2203870	364663
1997	22046	2494307	2494307	353813
2009	30577	4037039	4037039	1494632

Source: Central Bureau of Statistics, censuses 1977, 1987, 1997, and 2009 estimates.

3-4-2 Qualitative housing deficit

The number of families that share housing with others and live in housing uninhabitable or below the required standards. We can show the size of the deficit (Al-Saadi et al. 1990) Qualitative housing in Iraq, according to the population censuses, in 1977, the size of the housing deficit reached (390050) housing units, and in Baghdad (1987), the total deficit reached (576404) housing units, and the specific housing deficit in (1997) reached about (586,807) housing units and in (2009) estimates The specific housing deficit amounted to (1854746) housing units, Table (3).

Table (3) the specific housing deficit in Iraq

Year	No. of families	The No. of habitable housing units	Residential deficit
1977	1835083	1445033	390050
1987	2203870	1627466	576404
1997	2494307	1907500	586807
2009	4037039	2182293	1854746

Source: Central Bureau of Statistics, censuses 1977, 1987, 1997, and 2009 estimates.

3-5 Causes and consequences of the housing deficit in Iraq

The main reasons for the rise in the housing deficit in Iraq are: (Ministry of Construction and Housing, 2009)

- 1- Demographic reasons: The natural increase in the population increases the household rates.
- 2- The increase in the phenomenon of urbanization in Iraq and migration from the countryside to the cities.
- 3- The low level of per capita income due to the gross domestic product and gross in Iraq (Abdul Hamid, 2010)
- 4- The deterioration of housing units due to lack of maintenance and continuous restoration.
- 5- The continuous rise in the prices of construction materials and construction costs.
- 6- Weakness of the state's housing policy, the decline in the volume of investments in housing, and the reluctance of investors to invest their money in this sector due to the weak economic return and its link to the economic situation.
- 7- Reluctance of the private sector, such as individual companies, to invest their capital in the housing sector,
- 8- Stopping the programs of public housing plans in Iraq in housing strategy and policies.
- 9- The weakness of the legislation and laws on housing for a long time, due to the political conditions that Iraq went through, which did not keep pace with the housing changes and the notable increase in the number of families.

4- The housing deficit in the city of Baghdad

The housing problem in the city of Baghdad is the result of accumulations of many years of neglect and poor implementation of housing plans, the absence of economic, social, and urban development, and the insufficient maintenance, restoration, and renewal operations of the old houses from the (the 1970s) to today in light of the increasing population density in all Iraqi cities. We can explain the housing deficit according to the demographic and housing indicators:

4-1 The housing deficit of the city of Baghdad

From data, information, and housing indicators according to the 1977 and 1987 Censuses, Table (4).

Table (4) Population and housing indicators according to the 1977 and 1987 Censuses

Rank	Data	Population and housing indicators	
		1977	1987
1	The total number of the population/people	2676206	381268
2	Population growth rate (%)	3,8	4,2
3	Number of households (%)	404261	562047
4	Household growth rate (%)	3,27	3,2
5	Average family size / person	6,41	6,85
6	The total number of housing units (residential balance)	316619	432880
7	The number of non-fixed housing units	19163	17152
8	Balance growth rate from fixed units (%)	2,97	3,97
9	Quantitative housing deficit (number of families - number of total housing units)	87642	129179
10	Qualitative housing deficit (number of families - number of total housing units)	106805	146319
11	The average number of households in housing units (number of households/balance)	1,37	1,21
12	Average occupancy of residential units / one person	8,76	8,34
13	The total number of individuals who live in other accommodation	76724	23193
14	Total other residential places	1903	19729

Source: Central Statistical Organization, 1977, 1987.

From Table (4), census data (1977) indicate that the population in Baghdad reached (267,206) people, a growth rate of (3.8), a growth rate of families (3.27) people, and a growth rate of the housing stock (2.97%), which means that The growth rate of the family is higher than the housing stock, which led to the deficit in housing units, while the total number of housing units (the housing balance) reached (316619) units in Baghdad, and the quantitative housing deficit reached (87,642) housing units and the specific housing deficit was about (19613) Unstable housing unit. The number of families reached (404,261) families. We can deduce from the demographic and housing indicators that there is a deficit in housing units and from the census data (1987), it is found that the population is (381268) people with a growth rate of (4.2) and the family growth rate is (3.2%) and reached The average residential balance is (3.97), which indicates higher than the housing balance for the year (1977). The total number of housing units, the residential balance is (432880) housing units, and the size of the quantitative housing deficit is (129179) housing units, of which (17152) are not fixed housing units. The number of families is (562047) families. We can deduce from the demographic and housing indicators that there is a deficit in housing units in Baghdad.

4-2 The housing deficit of Baghdad, according to the results of the 1997 census

Data, information, and population indicators refer to the 1997 census.

Table (5) Population and housing indicators according to the 1997 census

Rank	Data	Population and housing indicators
1	The total number of the population/people	4135358
2	Population growth rate (%)	1
3	Number of households (%)	657538
4	Household growth rate (%)	1,4
5	Average family size / person	6,28
6	The total number of housing units (residential balance)	488616
7	The number of non-fixed housing units	26304
8	The balance growth rate from fixed units (%)	1,61
9	Quantitative housing deficit (number of families - number of total housing units)	175922
10	Qualitative housing deficit (number of families - number of total housing units)	202226
11	The average number of households in housing units (number of households/balance)	1,37
12	The average occupancy of residential units/person alone)	8,6
13	The total number of individuals who live in other accommodation	4789

Source: Central Bureau of Statistics, 1997 census

4-3 The housing deficit for the city of Baghdad for the year 2009

Data and information about housing and population indicators refer to estimates of 2009. From Table (5), the demographic and housing indicators indicate that the census (1997) reached the population of a city (4135358) with a growth rate of (1) and the number of families reached (657,537) families with a growth rate of (1.4) and the average family size (6,28) people The number of housing units is (481616) units, of which (26304) are unstable housing units, with a growth rate of (1.61), the quantitative housing deficit is (175922) units, and the housing deficit is (202226) units. Housing in the city of Baghdad for the year (1997).

Table (6) Population and housing indicators for the 2009 estimates

Rank	Data	Population and housing indicators
1	The total number of the population/people	6546429
2	Population growth rate (%)	3,7
3	The total number of families	1212301
4	Average family size / person	5,3
5	The total number of housing units (residential balance)	761221
6	The number of non-fixed housing units	38061
7	Quantitative housing deficit (number of families - number of total housing units)	451080
8	Qualitative housing deficit (number of families - number of total housing units)	489141
9	The average number of households in housing units (number of households/balance)	1,6
10	The average occupancy of residential units / one person)	8,6
11	The total population density is km ²	7582

Source: Ministry of Trade, Supply and Planning Department, Electronic Calculator (Baghdad Municipality, Statistics Division 2009).

It is evident from the data of Table (6) related to the data for the year 2009 that the population of Baghdad reached (6546429) people, a growth rate of (3.7), the total number of families (7612301) families, and the average family size (5.3) persons, and the housing balance was higher than the residential indicators. The previous one reached (7612221) units, including (38061) non-fixed housing units, and the quantitative housing deficit reached (451080) units and the specific housing deficit was (489,141) units, and the average number of families in a housing unit was (1,6) families/unit. The housing unit occupancy (8,6) Person/unit and the total density was (7582) person / km². We can deduce from the population and housing indicators that a deficit matches the high population density in housing units in Baghdad.

4-4 Qualitative and quantitative housing deficit in the city of Baghdad

4-4-1 Qualitative housing deficit

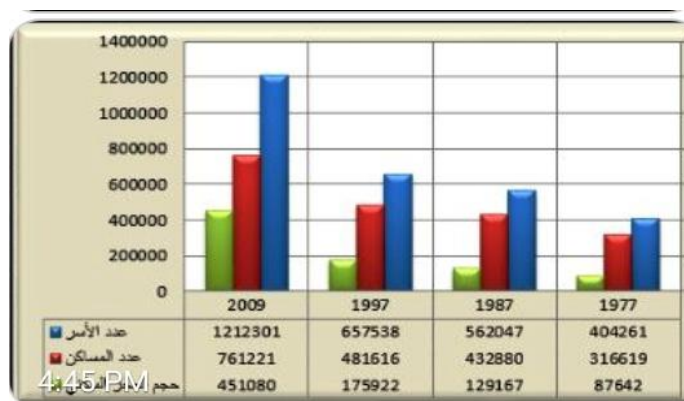
Through the previous data, the size of the specific housing deficit in the city of Baghdad with the number of families, Table (7) from (1977-2009).

Table (7): The size of the specific housing deficit in the city of Baghdad

Year	No. of households	Number of habitable housing	The size of the housing deficit
1977	404261	297456	106850
1987	562047	415728	146319
1997	657538	455312	202226
2009	1212301	723160	489141

Source: From the researcher's work based on table data (4), (5), and (6).

Figure (2): the specific deficit in the city of Baghdad



Source: based on the data of Table (7).

4-4-2 Quantitative housing deficit

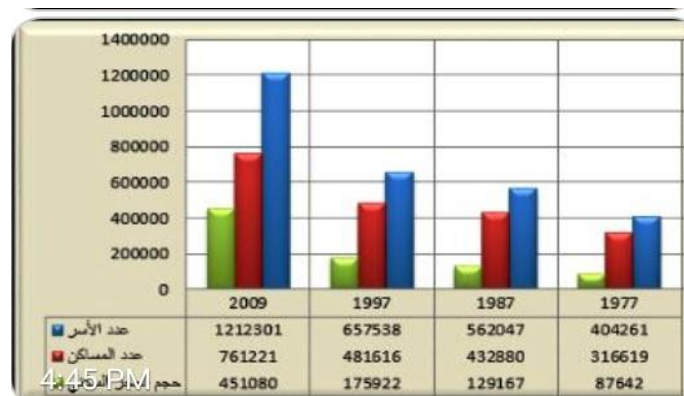
The quantitative housing deficit represents the number of housing units and families in the city of Baghdad (1977-2009).

Table (8): The size of the quantitative housing deficit in the city of Baghdad

Year	No. of households	Number of habitable housing	The size of the housing deficit
1977	404261	316619	87642
1987	562047	432880	129167
1997	657538	481616	175922
2009	1212301	761221	451080

Source: From the researcher's work based on table data (4), (5), and (6).

Figure (3): The quantitative deficit in the city of Baghdad



Source: based on the data of Table (8).

4-5 Problems resulting from the housing deficit in the city of Baghdad

The housing deficit has led to the emergence of many problems in Iraqi cities, especially the city of Baghdad, which are: (field study for the year 2020)

- 1- The housing deficit has led to the emergence of unplanned land use (slums) in Iraqi cities, most of which is Baghdad.
- 2- The housing deficit led to an override of the basic design and interference in the use of land in the city.
- 3- Studies indicate that 45% of divorce cases in Iraqi courts are due to housing reasons resulting from more than one family in one dwelling.
- 4- The housing deficit has led to encroachment on the green areas and the agricultural fringes surrounding the city of Baghdad.
- 5- The housing deficit generated a big problem: the housing split into dwellings with an area of 300-400 meters. This process led to an override of basic designs and pressure on community services.
- 6- The housing problem has led to some destructive social behaviors such as theft, unemployment, and delinquency in crime
- 7- The housing deficit led to the political collapse and instability of the state.

5- Housing policy and future need for housing in the city of Baghdad

Most of the reasons that led to the growth of the housing desertification problem in Iraq are due to the cancellation of housing plans in the last two decades of the last century and by the Iraqi state and have turned to projects that serve the war effort and moved away from the population's requirements for housing and community services, and the institutions responsible for housing in Iraq are institutions The following government:

5-1 The Ministry of Construction and Housing:

The Ministry of Construction and Housing sets plans for housing projects and institutions and supervises phases in their completion as well as the creation of some other institutions that have taken upon themselves (the secondary task) to prepare economic feasibility studies and housing projects, and from work entrusted to the Ministry of Construction and Housing are:

- 1- Proposing plans in buildings such as housing, roads, and bridges, and implementing projects within the state's general plans.
- 2- Carrying out quality control work and contributing to preparing specifications in the construction sector.
- 3- Develop designs and work methods for housing projects and infrastructure projects.
- 4- Supervising the implementation of the projects assigned to it.
- 5- Maintenance and continuous maintenance of roads and bridges.

To implement these tasks, the bodies and institutions affiliated with the Ministry carry them out according to their competence.

- 1- The General Authority for Roads and Bridges carries out the works of roads and bridges.
- 2- The General Buildings Authority is responsible for implementing and supervising construction projects, such as ministries, government centers, schools, and others.
- 3- The General Housing Authority implements and supervises housing projects.

5-2 Baghdad Municipality (Urban Planning Department):

Baghdad Municipality has a vital role in achieving urban development. It is responsible for the use of land, the establishment of infrastructure and community services within the urban space and development projects, and it has cooperation with the Ministry of Construction and Housing (Al-Tamimi, 2013). Among the works of the Baghdad Municipality are:

- 1- Developing the necessary plans for the city of Baghdad through contracting with foreign companies to solve the problem of the housing deficit.
- 2- It is responsible for the basic design and uses of the land inside the city and the changes that may occur to it.
- 3- Develop alternatives and solutions to the problem of the housing deficit according to the comprehensive development plan for the city of Baghdad for the year 2030 (Baghdad Municipality, 2030)

In (2010), the Ministry of Construction and Housing launched the (National Housing Policy in Iraq) with the help of the United Nations (the United Nations program un-habitat and some planners and academics. This policy dealt with housing types in Iraq, including urban and rural areas, and the housing policy was developed to achieve the following goals: (Journal of National Housing Policy in Iraq 2010)

- 1- Every Iraqi citizen gets adequate housing.
- 2- Increasing the efficiency of residential production.
- 3- Increasing the government's ability to meet the needs of low-income families who cannot afford adequate housing.
- 4- Improving the efficiency of residential products, including energy efficiency and environmental impacts.
- 5- Address unorganized random housing.

As the Ministry of Construction and Housing sought to implement housing projects to solve the problem of the housing deficit in the city of Baghdad and Iraqi cities by establishing (1600,000) housing units within its plan for the years (2006-2011), and the implementation responsibilities were distributed as follows:

- 1- The share of the government sector = 15%, equivalent to (24,000) housing units, and (42%) of them were implemented before the ministry's formations, and equal to (100,000) divided housing units (700,000) units implemented by the Public Housing Authority and (300,000) housing units financed from the Housing Fund.
- 2- The share of state ministries is (18%), and their number is (44,000) housing units in the cooperative sector = 9600 housing units.
- 3- The private sector share (85%) of the total (the National Development Strategy for the year (2005-2007)).

However, these numbers have not been implemented, but only a few of them due to the political situation in the country, and among the projects completed by the Ministry of Construction and Housing, Table (9).

Table (9) housing projects completed by the Ministry of Construction and Housing for the years (2006-2012)

Rank	Housing projects	Governorate	No. of housing units
1	The residential complex in Sabe Abkar	Baghdad	288
2	Establishment of residential homes in the Al-Jihad district	Baghdad	167
3	Establishment of residential homes in Sayyidia	Baghdad	49
4	The residential complex in Al-Haidarya	Karbala	432
5	The residential complex in Kuswilam	Babylon	504
6	The residential complex in Benga Ali	Kirkuk	600
7	The residential complex is in Sayada	Kirkuk	504

Source: Ministry of Planning and Development Cooperation (2005-2007).

5-3 Housing need for Iraqi cities:

The population of Iraq is (37) million people in (2017), and the rate of population growth reaches (3%) annually, and this means that the population of Iraq is increasing by (750) thousand people annually (Ministry of Planning and Development Cooperation, 2017). According to the economist Basem Jamil Antoine, Iraq needs (200) thousand housing units annually. It is accomplished annually (30) thousand units annually, and this does not meet the critical need of the population (Sadaal Watan-IQ-com.2018) and Iraq needs (5) five million housing units, including (2) million housing units in the city of Baghdad. (The new cities project proposal for the year (2017) to solve the housing crisis in Iraq (<https://yagein.net>)). Iraq recently resorted to solving the housing deficit crisis by providing financial facilities (Loans) allocated by the Central Bank of Iraq on easy terms. In (2019), the Iraqi government allocated five trillion to lending to citizens who want to build housing units in Iraqi cities.

5-4 Housing need for Iraqi cities:

Baghdad is one of the most densely populated Iraqi cities, with about (8.4) million in 2016 (<https://ar.m.wikipedia.org>). As urban growth escalated in the city of Baghdad since the beginning of the eighties and increased more after the year 2003, which is offset by a deficit in the population surplus and noise, environmental and visual pollution. However, the Ministry of Construction and Housing developed solutions through alternatives to address the problem of the population deficit in Baghdad table (10).

Table (10) Baghdad's need for housing units

Rank	Indications	No. of housing units
1	Baghdad needs housing units	2 million units
2	Replacing the non-maintainable housing units with new ones	7179
3	Units that have been maintained	64780
4	Units that cannot be maintained (worn out)	123497
5	Total new units	377276

Source: Muhammad Jassim Ali Al-Shaban, 2013 - Ministry of Construction and Housing, 2015.

5-5 The residential balance in the city of Baghdad:

The number of housing units in the city of Baghdad increased dramatically, as the total number of housing units in (1977) was (316619), of which (297456) were fit for housing and (19163) were unfit for housing. The number increased in (1987), reaching (432880) housing units, of which (415728) Unsuitable housing units and 1997 data showed the number of housing units (481616), including (455312) valid housing units and (26304) unfit for housing. The data and information for 2009 indicate that the number of housing units is (761221), including (723160) housing units suitable for housing and (38061) housing units unfit for housing and data and information for the year 2012 indicate an increase in the housing deficit due to the residential division, as the total number of housing units reached (861333), of which (825270) are habitable and (36063) units are unfit for housing, table (11).

Table (11) the residential balance and suitable and uninhabitable housing stock in the city of Baghdad

Year	Total housing units	habitable housing	The residences are uninhabitable
1977	316619	297456	19163
1987	432880	415728	17152
1997	481616	455312	26304
2009	761221	723160	38061
2012	861333	825270	36063

Source: Central Statistical Organization, data (1977-1987-1997), Baghdad Municipality
(Housing numbers, Statistics Division, 2009, 2012)

5-6 The housing deficit in Baghdad and future needs:

We calculate the housing need by relying on statistics on the existing and acceptable housing stock and comparing the number of families in place and time. Estimating the housing need depends mainly on forecasting the size of the demographic and social population and the expected urban renewal in the city (Al-Hamdan, 1999). To estimate the housing deficit, the housing need for the city must be estimated, and this requires providing the following information.

- The total number of households in the base year.
- The number of housing units (the total residential balance) in that year.
- The number of housing units below the minimum limits of the standard that need replacement (dilapidated housing) and units that need rehabilitation and improvement.

(Add a new life through the following steps:

- We subtract Paragraph (c), specifically the housing units that need replacement from Paragraph (B) to obtain the standard residential balance.
- By calculating the difference between Paragraph (A) and Paragraph (B), we obtain the housing need that represents (quantitative and qualitative housing deficit), noting that this includes the number of families that share housing with others who are considered homeless (Hassan, 2008)
- Calculating the future housing need also requires knowing the housing need resulting from the increase in the number of families, which in turn depends on the prediction of the number of families for a limited future year, as well as identifying the need resulting from the loss of housing units as a result of disappearing or due to development projects that require displacement of some housing units As a result of a change in land uses or because of wars and disasters, there is another method that can calculate the housing need for the city of Baghdad, either by calculating the numbers of habitable housing units and this is done according to the following law: $H = h (1-r) n$

As that

H: The number of habitable housing units up to the target year.

h: the number of the current housing units

r: the rate of residential degradation

N: the number of years.

By subtracting the number of households for the target year from the remaining number of habitable housing units for the same proportion, we can identify the number of housing units that should be built for that year that represent the future need (Al-Qatrani, 2014).

6- Conclusion

- The growing housing deficit in the city of Baghdad as a result of the instability of the wrong housing policy, which is the result of the accumulations of the seventies of the last century and to this day as a result of wars and political fluctuations.
- The warning about the problem of the housing deficit is not a newborn, but rather a problem that appeared and expanded due to migration from the countryside to the city and migrations from the Iraqi governorates in search of work and community services.
- One of the leading causes of the housing deficit in Baghdad is the lack of housing financing by the state for citizens.
- The real estate bank and the housing fund are bound by laws, including specifying non-expansion in their field of work in obtaining sources of financing.
- The lack of planning in the housing sector and the rates of population increase, and family and housing splitting led to pressure on community services.
- The lack of scientific studies specialized in the housing sector and its neglect, especially the studies prepared by foreign companies for Iraqi cities, including Baghdad.

7- Recommendations

- Activating the role of foreign companies in solving the problem of the housing deficit in Iraqi cities, including Baghdad.
- Encouraging ministries and government departments related to the housing problem, such as the Ministry of Construction and Housing and urban planning departments, to establish small cities outside the basic design (Subordinate cities) to the citizens, in easy monthly installments or with known guarantees.

- 3- Encouraging the private and foreign sector to establish housing complexes in various Iraqi cities, especially the city of Baghdad, through coordination with the Ministry of Construction and Housing and the Urban Planning Department in the Baghdad Municipality.
- 4- Benefiting from Arab and foreign experiences in solving the problem of the housing deficit as an experience (Chile, Malaysia, Thailand, Egypt, and the Gulf states).
- 5- Establishing residential complexes (vertical construction) to take advantage of the land areas, reduce time, and provide services.
- 6- The necessity of developing an annual plan for all Iraqi cities, especially the city of Baghdad, to establish housing complexes according to the population increase, to reduce the problem of the housing deficit.
- 7- Cooperating with international organizations concerned with housing affairs (the World Bank and the Organization for Human Settlements in developing plans and solutions to the problem of the housing deficit in all Iraqi cities.

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