

## Land market investments and their effects on urban land use planning (A case study of Karada Maryam in Baghdad)

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### Abstract:

The process of cities growth in Iraq and its expansion in all directions and the increase in its population during the last two decades led to the raising of land prices, several times, and this in turn led to the intensive re-investment of land by land owners, especially those lands located in city centers or in the main commercial areas and nearby areas, according to their importance, which constitute a financial resource, according to the conditions imposed by the market mechanism, but most of the changes are taking place away from the master plan, which led to Change land uses without any approved reference, as it lacks an approved planning reference.

The research problem indicate that the rise in land prices in cities and their vital centers led to intensive investment in land.

The research hypothesis: the intensive use of land led to many planning, environmental and administrative problems and increased burden on the ability of services to perform their function, which is originally in low-level.

The research goal: it is an attempt to highlight the problem of re-investing land in cities and the extent of its impact on the future growth of the city by understanding the course of that problem accompanying rapid urbanization, with the aim of developing legislative solutions and then appropriate guidance by the relevant authorities, and establishing approved bases of reference that can be referenced in line with the requirements of cities development and investment. The research used the descriptive and analytical method, based on the data collected from the study area.

**Keywords :** Urban land market, Land use, urban planning, Government policies or legislation.

سوق الارض واستثماراته وتأثيره على تخطيط استثمارات الارض الحضرية دراسة حالة كرادة مريم في بغداد

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**ملخص البحث :** إن عملية نمو المدن في العراق وتوسُّعها في كل الاتجاهات، وازدياد سكانها خلال العقدين الاخيرين أدى إلى رفع اسعار الاراضي ، عدة اضعاف وهذا بدوره أدى الى يقوم مالكو الأراضى بإعادة الاستثمار المكثف للأراضي، لا سيما تلك الاراضي التي تقع في مراكز المدن أو في المناطق التجارية الرئيسية والمناطق القريبة منها، ووفقاً للأهمية مما يشكّل عائداً مادياً، ووفقاً للمعطيات التي تفرضها آلية السوق الا أن معظم التغييرات تجري بعيداً عن المخطط العام. وتغيير استثمارات الارض بدون أي مرجعية معتمدة ، كما انها تفنقر الى مرجعية تخطيطية معتمدة، وجاءت مشكلة البحث في أن ارتفاع اسعار الاراضي في المدن ومراكزها الحيوية أدى الى الاستثمار المكثف للأراضي وجاءت فرضية البحث في أن هذا الاستثمار المكثف للأراضي أدى الى مشاكل تخطيطية وبيئية وإدارية كثيرة وزيادة الحمل على قدرة الخدمات على تأدية وظيفتها وهي بالأصل منخفضة المستوى. أما هدف البحث فقد جاء في محاولة ابراز مشكلة اعادة استثمار الاراضي في المدن ومدى تأثيرها على النمو المستقبلي للمدينة من خلال فهم مسار تلك المشكلة المرافقة للتحصُّر السريع بهدف وضع الحلول التشريعية ومن ثم التوجيه المناسب الذي تقوم به الجهات ذات العلاقة، ووضع اسس مرجعية معتمدة يمكن الرجوع إليها بما يتناسب مع متطلبات المدن والتنمية والاستثمار واستعمل البحث المنهج الوصفي والتحليلي بالاعتماد على البيانات التي جمعت من منطقة الدراسة.

**الكلمات الافتتاحية :** سوق الارض الحضرية، استثمارات الارض ، التخطيط الحضري ، السياسات او التشريعات الحكومية.

### **Introduction:**

The theme of city land has occupied people's minds since the beginning of the industrial revolution, the establishment of factories in the cities, the migration of rural people to them, and the expansion of cities horizontally and vertically. The more urbanization extends, the more complex problems of urban land increased, and they become important in many areas of economic and social studies that focus on cities. As for the need to plan the use of the land, it is due to its limited resources. With the expectation of doubling the population of the world during the next 60 years, there is an urgent need to adapt the types of land with its uses in the easiest way to reach the highest level of sustainable production, and to meet the renewable needs of society. The conflict of land use is inevitable because the demand for agriculture, grazing and urban development is greater than the available land resources. This problem is more urgent in developing countries and increasing every year, and since the inhabitants of the land depend on it to provide food, work and housing, in the long term these needs will create scarcity in obtaining land or the possibility of benefiting from it, because of this scarcity, land users lack the resources that they can own, so some begin to exploit agricultural lands, forests and water resources.

### **1. Urban land market.**

The urban land market in most developing countries that depends on preparing the land for the growth needs of human settlements, and this market, like other markets, is affected by a number of economic, social and political factors that affect land prices, and these main factors affect the demand for vacant buildings and there is another group of the factors that affect the land market (the cost of maintenance for buildings and the cost of investment alternatives), both of which affect the patterns of social and economic development of the country itself. The quality of urban life depends on the way in which the available land is used. Urban quality of life means the proper use of land for the general urban population, not a limited class of society. In most countries of the world, the urban land market represents the mechanism on which it depends in supplying (providing) land for the growing needs of urban spaces in human settlements. The high rates of increase in land prices in almost all countries indicated that the land supply in urban areas is not commensurate with the increasing demand. Thus, the monopolistic property of the urban land market arose through the unique characteristic of the land, in that it is an economic commodity that differs from most other commodities, and in each part it is unique in its properties and value. Its use for urban purposes depends on its location. On this basis, the need for land in one location cannot be satisfied by supplying it in another location (there is no international market for the land, it is linked to its location and cannot be moved to another place). On this basis, the factors that negatively affect the mechanisms of the land market can be identified (Dakin, 1977, p. 17) Inadequate offers for urban infrastructure structures.

The advantages of the semi-monopolistic site- -Scarcity of investment opportunities

Harris and Ullmann 1945 provided a contrary model. While the agreement prevailed on the concept of ring growth and changing sectors, both Harris and Ullman saw that most large cities contain secondary centers whose self-growth takes place from the role of the central nucleus of the city around which it grows

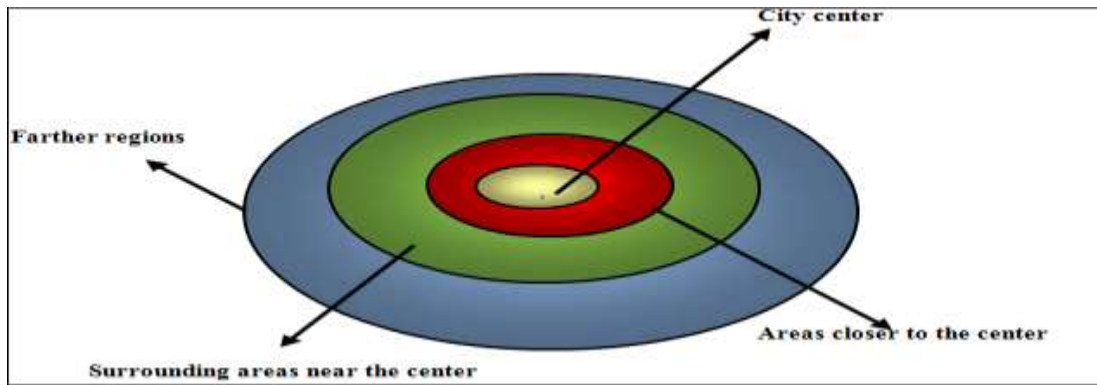


Fig No. 1 showing the determination of land uses of the researcher's work based on Abdul Hamid Bukhari, Dr.. Abla, Regional Economics, King Abdulaziz University, p. 40 Available at the link <http://www.kau.edu.sa/Files/0002132/Subjects/REG1.pdf>

### Urban land:1-1

The planners have a clear division of the land. It may be agricultural land, or urban land, and so on, the land is classified according to the nature of the activity prevalent in that land, if the predominant activity is an agricultural activity, then the land is agricultural in the planning sense. If the dominant activity is commercial, residential, service, or other or combined, the land is urban, and it may be urban and industrial if the industrial activity is prevalent. so it depends on the prevailing type of activity, in the other case the land is classified based on the planner and his study of the area, it is possible that the planner divides the area, for example, into heavy, medium and light industrial, according to his need, but these categories remain secondary categories within a larger classification, which is urban or rural land (Al-Anbaki, 1999, p. 22)

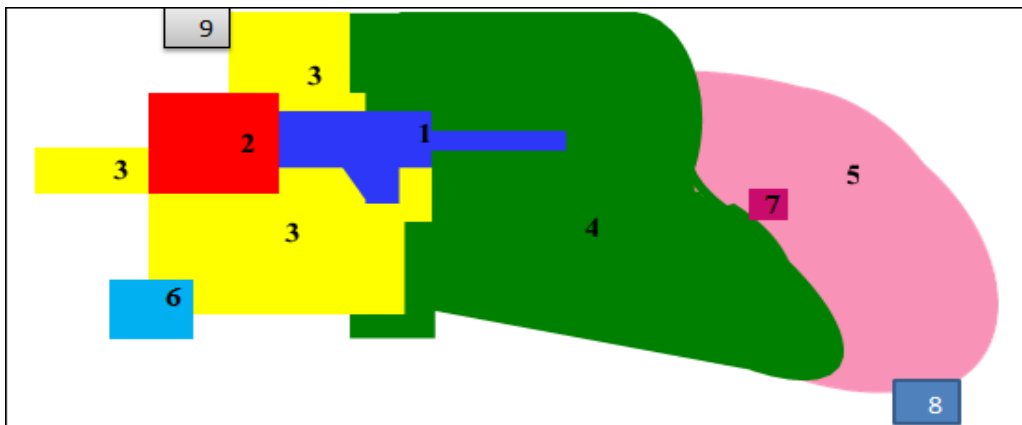


Fig. (2) Urban land uses around one center of the researcher's work based on: Abu Ayanah Fathi Mohammad, Urban geography, an analytical study of the village and the city, University Knowledge House, 2003

### Urban land uses around one center based on Fig (2)

1. Business and trade area
2. Low-profile housing and wholesale area
3. Low-profile housing area
4. Medium-profile housing area
5. High-profile housing area
6. Heavy industries area
7. Business area located on the outskirts
8. Residential suburb
9. Residential suburb

### 1-2-The Value of urban land:

It mainly defines the use of the land, according to the competition between the different uses, which gives different values to the industrial, commercial and recreational land. Therefore, the value of the land helps to know the general pattern of land use, and the value of the land rises with the development work carried out by the public sector for the foundation structures as well as population pressures for land demand (developed and undeveloped), in turn, constituted an influential factor in the potential development costs. The rise in the price of land in the centers of large cities has had an effective impact on the rise in land prices in the periphery areas. The negative effects of rising urban land prices can be minimized through effective interference by public bodies in the land market. There is a set of elements that help to determine the prices of land, namely: (Dakin, 1977, P. 88)

1-Characteristics of the plot of land, such as the shape and features of the land, the type of construction, and the availability of infrastructure services.

2- The amount of need for land through the supply and demand for land

3-The relationship between the plots of land and its requirements with the external environment, such as the source of raw materials, the main road network, and the ease of transporting its products to the markets. (Al-Absi, 2009, pg. 439)

### 1-3.The master plan of the urban city

That encompasses determining and organizing the spatial distribution required for the uses of the city's land, and clarify the nature and intensity of the various uses, whether they are residential, industrial, commercial, recreational, services, transportation, networks, utilities, public services ... etc. It shows the basic future structural design of the city, changing future land uses and expecting events. and population densities in urban areas, road networks and transportation systems necessary to link events and ease of communication among them. the master plan is prepared for a period ranging from 20-25 years, which is the longest period that the planner can visualize for the future development stage of any city, and the master plan is usually reconsidered, during a period ranging from (5-10) years, and this is what makes the implementation of the master plan take place in several stages, off course the review is a natural result of the process of rapid scientific and technological development in various sciences that constantly introduce new variables in the urban societies, and the review is needed also due to the changes in population growth. in order to meet the new requirements for the formation of a homogeneous and growing socially and economically society. The master plan is a plan of action programmed to monitor and direct the growth and development of the society, over a period of time in a manner that ensures the growth of all the basic sectors in a balanced manner and in a manner that makes the city capable of absorbing the population increase and providing all possibilities for this increase without disruption or pressure on services and avoiding the problems associated with the process of unplanned growth of cities (Al-Ashaab, 1980, p. 133)



Fig. (3) The basic design of the city of Baghdad 1957

Source: Baghdad Municipality/Design Department/Urban Planning Department

#### 1-4. Government Intervention in the Urban Land Market:

Market mechanisms, in the demand side, are affected by the ability to finance the acquisition of land and buildings, and the provision of soft market guarantees for alternative investments for savings, and number of governments resort to direct intervention in the land market by putting hands and expropriating lands prepared for future development. Where the prior acquisition of land in the open market has many the advantages, the cost of ownership is lower, and there are several options for choosing locations, thus the owners' ability to withstand until the time for development and price increases is limited, and private ownership of the land works to highlight or intensify the adverse effects of the immaturity of the urban land market. While it is supposed to lead, like other investments, to the use of the highest productivity, but this case may not occur due to the special specifications of the urban land market and in third world countries in particular, therefore it requires direct intervention in the land market by the state. The main problems of the urban land market that require government intervention can be identified as;

- A. The need to provide specific lands serviced by substrate structures, which cannot be adequately provided through the private market.
- B. The existence of distinct locational elements, negative or positive, which decision-makers ignore in the private sector.
- C.. Incomplete information on which to base individual decisions and the general costs of using the market..
- D.. The unequal division of market forces by economic factors, particularly in the case of monopolistic supply. (Ahmed, 2010, p. 35).

#### 2. Urban land uses

It is known that the planning of land uses for urban purposes depends on a number of mechanisms and programs that aim to optimally use the land economically and urbanely. One of these clear and efficient mechanisms in urban land use planning is the regular review of the master plan with the aim of modifying, reformulating, and timing land use programs according to new variables and urban development patterns. Any attempt to develop a comprehensive urban land policy is faced with the multiplicity of these goals, overlapping mechanisms that affect the location, use of the land and the absence of a clear methodology for reconciling between them. The reason is due to the different relative importance of each of them, and reconciliation between the factors affecting the uses of the land for urban purposes remains practical controversial despite the multiplicity of methods and approaches adopted by developed and developing countries due to the multiplicity of goals and viewpoints on the efficiency of the basic mechanisms and their side effects that they are working to achieve (Ahmed, 2010, 35)

#### 1-2 Elements of controlling land use in the city

There are three important elements to control the planning of land uses in the city, which are (location, value and ownership of land, activities and population), these elements interact with each other as shown in the following figure.

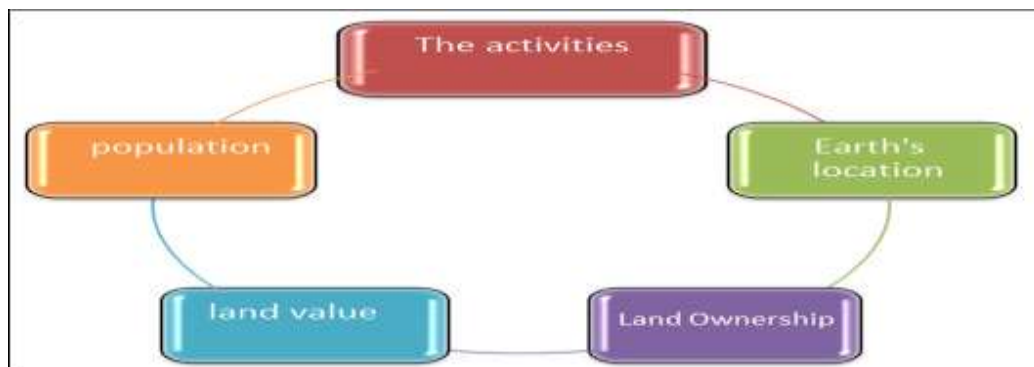


Figure (4) shows the important elements in urban land use planning  
Source: JR, Chapin Stewart. "Urban Land Use Planning", 2nd ed., 1972, p. 56

### 2-1-1 Urban Planning:

Urban planning is defined as a process through which a reasonable and appropriate arrangement and organization of land use and determination the location of various activities within the city (Ismail, 1993, p.357) The city planning process is about defining the most appropriate ways and directing the control of land uses, and investing its resources in a way that achieves the maximum economic and social returns, and this comes by improving the environment” (Al-Buhairi, 1994, p.9);. And urban planning is a continuous process and it is an organized human product. It is considered a complex interwoven fabric. It contains the organization of commercial and industrial areas adjacent to residential areas, and it occupies a larger role that includes the readiness of the population to deal with the adopted policies that are reflected in their daily lives. As well as the role played by the adopted economic system and the aspirations and needs of citizens. (Al-Saidi, 2000, p. 5)

#### • Land use planning to address challenges of urban development:

as many cities rapidly expand, land risks becoming occupied without the coordination or supporting infrastructure that underpin this process. Without active land policy, productive clusters are unable to form, and basic infrastructure and services become prohibitively costly to provide. Instead, land becomes occupied through an unplanned process of urban sprawl. The result is urban development that is inefficient, unliveable, and environmentally unsustainable. There are complementary roles for policy both in establishing clear public and private land rights, and in urban land use planning. Formal land rights are key to ensuring long term productivity and liveability in cities. By enhancing both the security of land titles and the ease with which these titles can be transferred through land markets, formalisation of titles allows for more productive use of land over time to meet the needs of residents and firms. With well-functioning land rights, businesses and households can make choices about where to locate based on their varied interests.( Collier, p et al:2020,p5). For developing and middle-income cities, high density development in urban centres is valuable so that a number of firms and households can interact and exchange ideas, benefiting from the scale and specialisation that comes with clustering of activity. This clustering in the city centre is likely to be most valuable for producer services that benefit from proximity to other firms and workers. As land becomes less valuable the further out from the centre of a city, individuals who can afford to travel further to their jobs and want to live in larger houses can do so without taking up large amounts of valuable central land. Land intensive manufacturing industries that benefit significantly from clustering with complementary firms can do so on the outskirts of a city, while consumer services that benefit from being close to customers are likely to be more dispersed in the city.( Bertaud:2019, without pages).



Fig (5): Land Use Planning and Spatial Land Use Planning

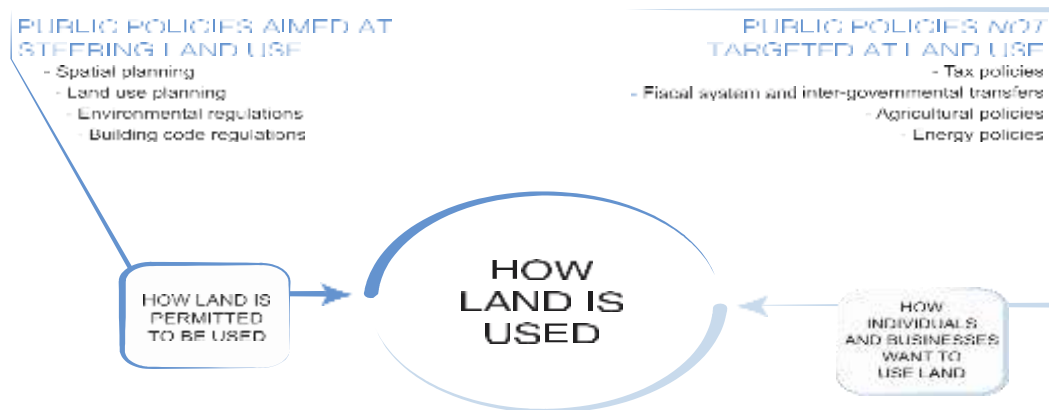
Source: Graciela Metternicht, September (2017) Global Land Outlook Working Paper, Graciela Metternicht University of New South Wales School of Biological, Earth and Environmental Sciences Palaeontology, Geobiology and Earth Archives Research Centre (PANGAEA)

#### • Key directions for supporting SLM through land use planning policy:

Land is one of three major factors of production in classical economics (along with labor and capital) and an essential input for housing and food production. Thus, land use is the backbone of agricultural economies and it provides substantial economic and social benefits. Land use change is

necessary and essential for economic development and social progress. Land use change, however, does not come without costs. Conversion of farmland and forests to urban development reduces the amount of lands available for food and timber production. Soil erosion, salinization, desertification, and other soil degradations associated with intensive agriculture and deforestation reduce the quality of land resources and future agricultural productivity (JunJie:2008,p6).

Land use regulation can take many different forms. The traditional command and control approach often involves zoning, density regulation, and other direct land use controls. Although these policies can be quite effective as regulatory tools, they could lead to substantial social welfare loss in the form of higher housing prices, smaller houses, and inefficient land use patterns (Cheshire and Sheppard:2002,pp52-69)



Fig(6):HOW SPATIAL AND NON-SPATIALPOLICIES AFFECT LAND USE

Source:OECD (2017) The Governance of Land Use, Both this policy brief have been prepared by the Regional Development Policy Division in the Public Governance and Territorial Development Directorate of the OECD. <https://doi.org/10.1787/9789264268609-ar>

### 2-1-2 Objectives of Urban Planning:

Urban planning seeks to achieve a set of objectives, the most important of which are;

- 1-Improving the natural environment of society in order to increase human activities and make this environment beautiful, healthy and useful so that it performs its function to the fullest aspect.
- 2-Regulating the relationship between the different uses of urban lands.
- 3-Improving and developing the general interest of the population in the first place.
- 4-Coordination between public policy and the development processes carried out by members of society.
- 5-Expand and strengthen the economic base of the local community.
- 6-Providing technical information and making it govern and direct the process of making political decisions related to the natural development of society.
- 7-Linking the long term development processes with the short term development processes (Allam, 1991, p. 23).

### 3 -Legislations, governmental laws and land use

The legislations related to land uses, which aims to meet the requirements of land uses for urban purposes, can raise the capacity to absorb urban land. In recent decades, and through the experience of a number of major cities, it was found that planning can increase the capacity to absorb urban land, while the lack of planning leads to an increase in urban land use through the distribution of events and activities over large areas. The process of organizing urban land market mechanisms on this basis requires an integrated program that reconciles the objectives of comprehensive planning legislation with the spatial determinants of different urban uses. As the spatial determination of urban activities and events and their urban space are the most common mechanisms for controlling land use. The spatial definition aims at coordinating private sector investments in land use with the public part devoted to services, for example roads and service activities. It is also intended to reduce

the external factors that affect the uses, therefore the policies and programs related to urban land revolve focus on the importance of preparing the land in order to meet the requirements of civilized development and the possibility of the current balance of land in balancing future demand (Al-Khouli, 1993, p. 116).

### 3-1 The importance of urban legislation and its impact on urban land uses

- 1- Directing land uses to enhance the expected development of the community protection of factory sites, housing, trade, parks, and other uses.
- 2-Deterring the wrong use of the land so that it does not affect the interests of society preventing poor construction or unnecessary intensive development.
- 3-Avoid misusing the land (preventing incomplete sorting, or dividing the land)
- 4-Regulating the non-use of land by imposing taxes to prevent the speculation of land.
- 5-Reusing the land for more appropriate purposes (urban redevelopment, removal of worn out areas, re-housing and urban renewal. (Al-Saadi, 2002, p. 88)

Thus, the social aspects, and legislation have an important role in determining the appropriate frameworks for the formation of the elements of the urban fabric for any urban area, and this is observed, for example, in the city of Baghdad, the numerous legislations affected the urban fabric of the city and its urban functions, and had a key role in generating the problems that experienced by any attempt which deals with urban land by any the procedures .

### 4-The practical aspect.

The events that took place in cities and their accumulation for many periods of time had several phenomena, some of which disappeared, the reason for this is the failure to achieve the spatial efficiency that gives continuity to these phenomena.

The study area is located in the eastern Karrada sector in the city of Baghdad, where Karrada sector constitutes one of the urban sectors that make up the current city of Baghdad. the study area (the eastern Karrada secondary sector) represents one of the two sub-sectors that make up the main Karrada sector, which are the eastern Karrada secondary sector, as shown in the following figure;

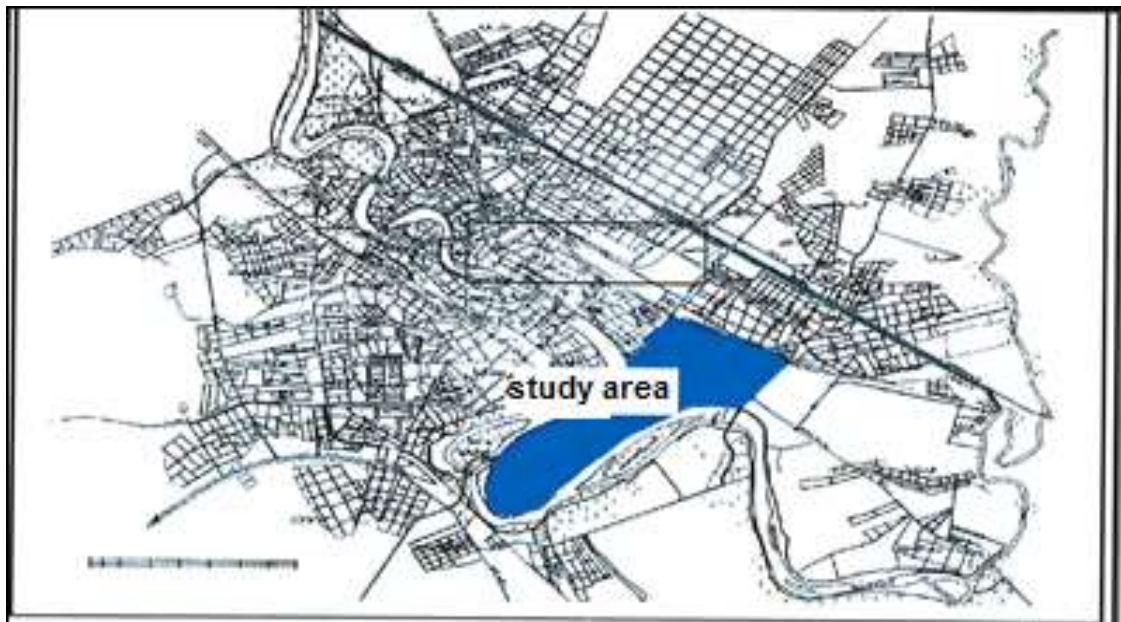


Fig. (7) showing an enlarged scheme for Karrada secondary sector within the original Karrada sector  
Source: Municipality of Baghdad - basic design – 2017





Fig.(8) showing a plan of Karada Street inside (The study area) Source: GOOGEL Earth, 2017



Schemes showing urban land uses of the study area: Land uses for the study area included a number of different uses, and the following is a table (1) that shows the most important uses.

Type of use	Commercial Use	Professional Use	Service Use	Residential Use	Total
Percentage	80%	18.25%	0.5%	1.25%	100%

Table. (1) shows the most important uses of land in the study area.

Source: Rasha, Saadoun, 2019, p. 76

Accordingly, through the above table, we can see that the price of the land is determined by a group of uses in this area. in the case of residential areas, the choice of land plot in an area is considered based on the quality of housing in it, homogeneity of the population, characteristics of the quality of construction around it, and the desired purpose. The element of the land location is one of the most important determinants of its value, as its price is affected based on its location from the city

center or the surrounding areas and streets. The following figure shows the relationship between the price of the land and its distance from the center.

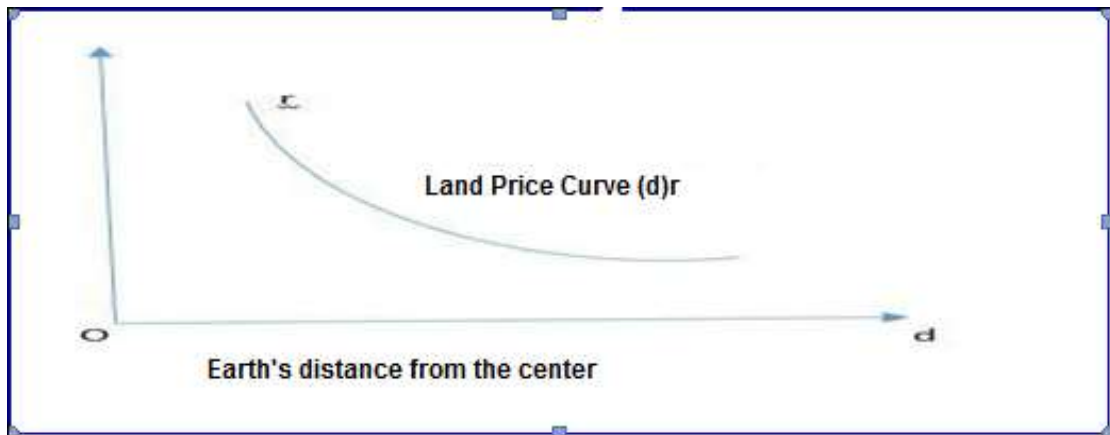


Fig (9) shows the relationship between the land price and its impact on its distance or proximity to the city center

In the second case, the land prices depends primarily on its location and distance from the city center, as well as the functional activity determined by the market mechanism in each region according to the profit return. The following figure showing the relationship between the land price and its functional use.

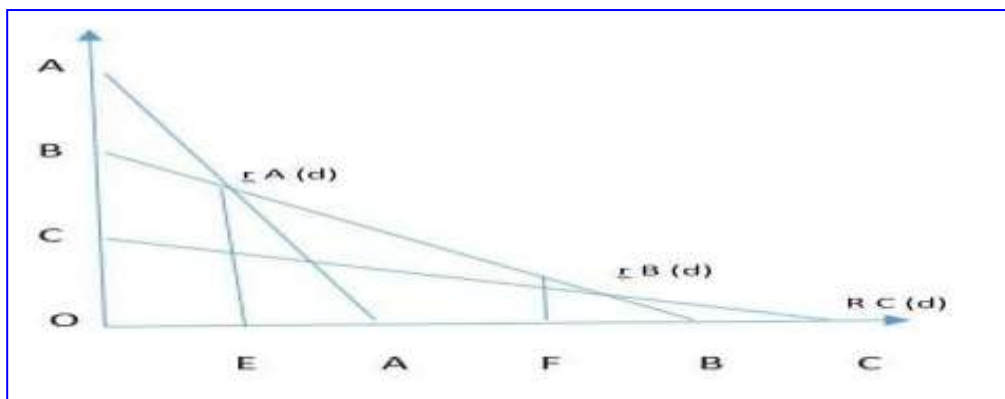


Figure (10) shows the relationship between the price of the land and the type of its use

### Conclusions;

- 1- The increasing of land prices in the city center which doubled ten times, prompted their owners to reinvest them or sell them at the highest prices to be reinvested by removing low buildings and constructing high buildings in their place.
- 2-The process of land investment was accompanied by a functional transformation from residential, commercial and low investment to commercial, financial, service and intensive investment, which in turn affected the surrounding buildings.
- 3-Although Karrada area is located within the basic design of Baghdad city, it has not been given sufficient care in line with its dynamic nature, as the process of neglecting made its development such a very difficult and costly process in terms of the economic hierarchy without implementing the services hierarchy in the city, which is the best method without changing the land uses from residential to commercial.

## Recommendations

- 1-It is important to make a clear prior methodology for the urban planning process and updating the previous plans through adopting the must needed legislation, laws and planning standards, and commitment to their application, even if that is in the long term.
- 2-Establishing specialized scientific, research and control centers that follow up the movement of the city and urban growth, and following up the cumulative changes of that growth, which ultimately lead to qualitative change through urban studies and researches that direct the general content of planning to the necessity of continuous linking between research, planning and implementation work.
- 3-In order to control the random land uses, this process must be organized and controlled, because there is a need to conduct continuous analytical processes to know the change in the system of interrelated relationships between the elements of land uses, especially the transformation of residential use into commercial one..
- 4-Reconsidering the distribution of urban land uses and working to raise the uses that are inconsistent with the surrounding uses, such as an industrial area and old camp in the city center or within residential neighborhoods..
- 5-Re-planning the old neighborhoods that are no longer habitable and inconsistent with the urban development witnessed by the city, as well as re-planning the slums located within the basic design.
- 6-Reducing the migration phenomenon from the countryside to the city by providing the requirements of urbanization in the countryside, as well as adopting low-cost housing in addition to vertical housing.

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