



Planning and Environmental Legislation to Preserve Urban Agricultural Areas in Cities

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Abstract

Urban agriculture in cities is an important part of urban management and plays an important role in creating new jobs, protecting the environment and contributing to sustainable development. Urban agriculture is rarely adopted in planning and policy formulation. It is necessary to develop new planning and environmental legislation to promote urban agriculture in cities by involving all stakeholders in the importance of urban agriculture in achieving the economic, social and environmental objectives of sustainable urban growth. The challenge of urban agriculture requires that urban agriculture become an integral part of urban environmental development, while areas of urban agricultural areas suffer from marginalization despite its fundamental role in cities. The research dealt with the impact of some of planning and environmental legislation on a number of urban agricultural areas in the city of Kut by converting large parts of it into residential areas, which adversely affected the environmental, planning, economic and social objectives of the master plan of city, through an analytical study of urban agricultural areas within the master plan of Kut city, which Affected by this legislation.

Keywords: urban, agriculture, planning legislation, master plan, urban management, economical aspect.

1 Introduction

The term urban agriculture can be defined in its simplest meaning as the growing of plants and the raising of animals within and around cities and distinguished from rural agriculture by its integration into the urban economy and ecological system. Such integration includes: 1. use as labors by urban residents. 2. Some typical urban resources such as organic waste products may be used as compost. 3. The use of urban wastewater for irrigation. 4. Possible direct linking with urban consumers. 5. Possible direct effects, whether positive or negative on urban eco system. 6. Its role as an urban food system that may compete for land with other urban functions [1].

According to the United Nations in 1987, urban agriculture does not reflect the past that will fade away (i.e urban agriculture is directly proportional to the city growth and therefore it is an integral part of the urban system and worth to be investigated as a tool for city planning [2].

The importance of city planning laws and legislation, taking into consideration the environmental dimension, is seen as the regulator of human behavior towards the urban environment in which they live, and is partially constrained by their behavior

1.1 Research Problem

There is a weakness in legislation and planning laws that contribute to the promotion of urban agriculture in cities as an integral part of urban development

1.2 Research Objective

The research objective is to study the impact of planning laws and legislations on the transformation of a number of areas of urban agriculture to another use in the master plan of the city, and how to protect the rest of it legally within the institutional planning.

1.3 Research Hypothesis

Urban agriculture is an important part of urban governance which contributes to sustainable development; many of the problems of urban governance in our cities were the result of weak legislative aspects.

1.4 Research Methodology

The research is based on a descriptive analytical approach in showing the concept of urban agriculture, its importance, the concept of laws and planning legislation and its importance in the preservation of urban agriculture areas, and to clarify the impact of these laws in changing the urban environment in the master plan of the city of Kut as a case study.

2 Urban Agriculture

The concept of urban agriculture emerged with global attention to the sustainable orientation of cities, the following is the most important studies in this concept

1- Ecological agriculture that occurs within a city, because it allows the cultivation of food crops for local consumption run by the community, increases biodiversity within the city, reduces atmospheric pollution and saves energy consumption in transport; however, urban agriculture is not self-sufficient to keep the city's food needs, because the ecological footprint of the city is always much bigger and ultimately food needs to be imported [3].

2- It is a production process that can take any form, occupying almost any area in the city, large or small, horizontal, vertical or rectangular in brownfield or greenfield locations in parks and on reclaimed roads [4].

3- It is a tool to reduce urban poverty and improve household food security by combining nature and city life together, making food available to the urban poor is an important element of urban sustainability and it not only improves the income of poor families by providing employment, but also increases their quality of life [5].

The importance of city planning laws and legislation, taking into consideration the environmental dimension, is seen as the regulator of human behavior towards the urban environment in which they live, and is partially constrained by their behaviour

2.1 The Importance of Urban Agriculture

In general, the importance of the research topic is not limited to the following aspects:

2.1.1 The Aspect of Food Security and Insecurity Conditions

One main asset of urban agriculture is its probable contribution to food security and healthy nutrition. There are several reasons for food production in cities. It can be a response of urban poor people to insufficient, variable or irregular access to food in addition to the low purchasing power.

2.1.2 Economical Aspect

Because people with low income spend 50-70% of their income on food, they tend to grow their own food which saves their expenditures. Growing fruits and vegetables (fresh or processed) with relatively expensive prices not only saves their money but also improves their income [6].

2.1.3 Social Aspect

Urban agriculture can be considered as an important strategy to alleviate poverty and integrate social system. For examples, some municipalities or non-governmental organizations (NGOs) have established projects that involve urban agriculture in which unemployed or elderly people are enrolled so that they can be integrated more strongly into the urban network [7].

2.1.4 The Aspect of Urban Ecology

Urban agriculture is well known aspect that is involved in controlling urban ecological system. In addition, it plays a central role in the management of urban environments. The growth rate of cities is more likely to produce more wastewater and organic wastes. However, possible problems can be solved by urban agriculture which can help by converting urban wastes into beneficial resources [8]. In addition, urban agriculture may also have a positive impact represented by increasing the green areas and enhancing the cleanliness of cities since it makes green zones from open spaces, maintains buffer and minimizes housing which ultimately improves the micro-climate such as shade, temperature and sequestration of Carbone dioxide [9].

3 Means Required for Urban Agriculture (The Pre-Condition)

For agricultural activities to exist in certain cities, five basic aspects are required:

3.1 Natural Conditions

Areas with suitable climate are characterized by high occurrence of urban agriculture because it is easier to start without major investments. Such environment is a good option for all income groups [10].

3.2 Physical Infrastructure and Services

In the presence of basic requirements for agriculture such as water and space along with infrastructure which can replace rainfall in areas with low rain improves urban agriculture. However, urban agriculture could be dominated by certain groups of people who have access to water and more economically oriented.

3.3 Socio-Cultural Conditions

Socio-cultural conditions may refer to farming traditions and food preferences as an entry point into urban agriculture. On the other hand, it may indicate that urban agriculture is relatively known activity and people are skilled in various populations [11].

3.4 Institutional Conditions

It is essential that the institutions are capable of providing or at least not restricting access to water and space. It is well documented that water and space accessibility are social and institutional problems. In addition, such issues are often gender specific [12]. Since access to water and space is usually managed by law and institutional planning, the rules and conditions are used to be within a legal framework [13].

3.5 Economic Conditions

Several issues have been reported with urban agriculture such as labor market, inadequate income and an unsatisfying demand for agricultural products in quantity and quality [14].

Using urban agriculture as an important tool for the city planning will provide : 1.A complementary strategy to decrease poverty and food insecurity in urban populations. 2. Enhancement of aspects related to environmental management. 3. Enhancement aspects related to urban food security.

In other words, the integration of urban agriculture concepts into the city planning tools will also help to develop the local economic and support social inclusion of the urban poor people in addition to increasing green areas in cities and the productive reuse of urban wastes.

4 Urban Legislation

Urban legislation is a set of technical and legal procedures (economic and social) that must be followed to achieve harmonious and rational use of urban spaces and also to achieve human growth of urban blocks. It is the art of creating cities, city science, or mass science. Urbanism shows integration and continuity, which is prepared either for housing, work or social exchange [15].

A set of written legal rules issued by the competent authority governing and controlling the urban planning process at all levels of national, regional and local levels, and its basic and sub-inputs, and determining the form of relations among the parties involved in urban planning, determine the necessary organizational and administrative procedures and requirements to achieve the purposes of urban planning [16].

4.1 Master Plan

Master plan is the representative of the current state of the city or town and future urbanization in all areas, be accompanied by a building system that defines the building and urban foundations; It must be a sincere state that reflects the historical, economic, social, environmental, cultural and political content that each city or town is composed of, to be of the environment for which it was established, and expressing it [17].

4.2 The Importance of Urban Legislation

The importance of laws and legislations lies in the organization and fulfillment of the needs of society and individuals for public benefit factors within the framework of the balance between the needs of individuals and society material and moral, therefore, the laws are regulating urbanism.

One of the main mechanisms that lead to achieving a building compatible with the needs and requirements of individuals and society for organizing the work of buildings and the right of neighborhood, public health, security, safety and comfort. So, these laws are the cornerstone to achieve a sustainable urban environment with a distinctive identity of the community.

The importance of urban legislation is that it is the basic tools that affect the level of urbanization of the countries and the orientation

The basic guide for upgrading the urban level through its tasks the following:

1. Identify the entities entrusted with the process of urban planning, and their responsibilities and powers in the management of the planning process.
2. Work on the legalization of procedures and urban requirements, and deepen the principle of clarity and credibility, and achieve planning justice.
3. Regulate and determine the relationship between public authorities responsible for urban planning, and the relevant authorities.
4. Achieve harmony and balance in urban patterns, by applying uniform planning legislation defining the urban character of the city.
5. Lead to achieving architecture compatible with the needs and requirements: urban, functional, with a distinct identity.
6. Is a tool to change, improve and reform the urban and rural urban environment, through binding and decisive provisions and put them into practice to achieve the objectives of urban planning and development.
7. Depends on the democratic approach based on the participation of urban actors, and owners that will free the energies to develop a vision for the future integrated urban development.
8. To shape the future for future generations and this is a responsibility we have to sense its magnitude, so that our contributions are at level desired aspirations [18].

5 Case Study

5.1 The Master Plan of the City of Kut

The current basic design of Kut city is the fourth documented design of the city, which was approved on 16/12/2014, where the first design was prepared by the Ministry of Planning, Directorate of Urban Planning in 1965, followed by a study of modernization and preparation of a basic design by the same Directorate in 1979 During the development of a basic design until 1985, the third design was initiated in October 1999, taking the following developments in the decision No. (117) for the year 2000, and related to the land secretions and distribution, and continued amendments as directed by the Ministry and the central government (Presidency Dewan) , ratified in 2003.

5.2 Urban Agriculture Areas in the City of Kut That Have Been Converted to another Purpose

According to the current master plan, which has been adopted as of 16/12/2014, a number of urban agricultural areas in Kut city have been converted into residential areas to avoid the increase in population growth in the city. The research dealt with Al-Hakim and Al-Jawadin areas as described below

5.2.1 Al-Hakeem District

Al-Hakim covers 211 hectares and is located to the northeast of the city along the international road 6 (Kout-Amara Road)

5.2.1.1 New Land Use in the District Of Al-Hakim (According to the Modern Master Plan)

Most of the space is currently allocated for residential use. It is subject to the planning and design of old schemes that were not distributed to citizens. This agricultural area originally has a riverfront of the Tigris, and new uses have been proposed in the modern master plan along the river on both sides. It includes an ecological park on the left between the bridges and the striped or waterfront promenade. That open space and entertainment projects will benefit the residential future of Hakim neighborhood.

Hakim district is currently a large area of temporary housing. These houses are illegal except for the few that have received building permits. It was built on striped areas along the agricultural lands that exist in this part of the city of Kut. The municipality decided that citizens who illegally built their dwellings here should be re-housed elsewhere in Kut and on approved areas and designated divisions.



Figure 1 The current master plan for the city of Kut shows the Hakim and Jawadin areas (Resource: Author).

5.3 Al-Jawadain Neighbourhood

The study area covers about 211.2 hectares which lies to the east of the city center, south of the Tigris. It is accessible from the national highway (Route 7) which also provides easy access corridor towards the city center.

5.3.1 New Land Use in Al-Jawadin Neighborhood (According to the Modern Master Plan)

Most of the space is currently allocated for residential use. It is subjected to the planning and design of old schemes that were not allocated to citizens. This area has a riverfront of the Tigris and new uses have been proposed along the river on both sides. These include an ecological park on the left between bridges, a striped or linear riverfront promenade, and a tourist hotel will hopefully be set up on the right to serve tourists. All these projects benefit the residents of Al-Jawadin neighborhood.

Al-Jawadin neighborhood currently has a large area of temporary housing for displaced or internally displaced refugees. These houses are illegal except a few of which have permits for construction. It was built on striped areas along the agricultural lands that exist in this part of Kut city. The municipality has decided that refugees should be encouraged to return to their areas of origin or else they will be accommodated elsewhere in Kut on the approved areas and designated divisions.

6 Results and Conclusions

Urban agriculture requires the presence of water and land and is available at the sites presented in the research shown in Figure 1. Its encouragement only needs to motivate stakeholders and draft new legislation.

Urban agriculture plays an important role in creating jobs, protecting the environment and contributing to sustainable development, so it is necessary to develop new legislation and planning policies that promote urban agriculture in cities. The change in the use of urban agricultural areas to residential areas has been in accordance with the outputs of the current master plan of Kut.

7 Recommendations

1. The need to develop new legislation and planning policies that promote urban agriculture in cities.
2. Reconsider the areas allocated for residential use overlooking the banks of the Tigris River within the areas of al-Hakim and Jawadin by changing their use, to be green areas allocated to urban agriculture because of the benefits provided by these areas in terms of economic, environmental and social aspects of the city in general.
3. Develop future plans to expand the urban agricultural areas within the future expansion in the master plan of the city.

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Biographies



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