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Urban sprawl in the city of Batna between reality and challenge (a case study of the city of Batna) – Algeria

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Dr. fouzi mechnane<sup>1</sup>

<sup>1</sup>Doctor of Science social urban, University of Haj Lakhdar Batna 1, Faculty of Humanities and Social Sciences - Department of Sociology and Demography (Algeria).

### **Abstract :**

**This study aims to address the reality of the phenomenon of urban sprawl in the city of Batna, which is found moving towards its outskirts and to the detriment of its agricultural land and finally an attempt to present some solutions, suggestions and recommendations around this study, which can be a way of confronting and limiting it. Through this study, we concluded that this phenomenon has developed and spread, especially towards the outskirts of the city, which has caused a radical change in the field of the city and made it lose its function of management and control. organization, and all of this happens in the absence of direction. and plans for reconstruction and land use which have not played a greater role Limits the development of the phenomenon and its control.**

**keywords: The concept of urbanization - urban expansion - urban sprawl - urban development urban sprawl - urban growth.**

**Email Author: [mechnanfouzi@gmail.com](mailto:mechnanfouzi@gmail.com)**

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### **Introduction and problem of the study:**

The problem of urban sprawl on agricultural lands is a global environmental problem that all countries suffer from. environmental impacts on it, which results in many negative effects and dimensions at all levels, especially the environmental ones, which disturb the balance between urbanization and the surrounding agricultural lands.

The city of Batna is one of the most important cities that witnessed the phenomenon in a considerable way, and it did not affect its urban field in a way that made it lose its center and its cultural, historical and architectural role, and thus distorted its image and facilitated the spread of random and unplanned reconstruction, so the city became as if it were shrines whose main goal was to shelter and protect the population. From the cold and heat of nature, the plans and laws that regulate and run the city and control its expansion and development were ignored and reconsidered.

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And through our study of this phenomenon, which we find spreading and developing towards the outskirts and edges of the city of Batna, we tried to track it by addressing the most important causes and factors of its spread and development, as well as the challenges and repercussions it raises, in order to be able to develop solutions, suggestions and recommendations to reduce and confront it, and that By finding suitable alternatives and benefiting from previous studies and projects, and accordingly, the new urban agglomeration area was identified, Campaign 1-2, due to the rapid increase in residential construction at the expense of agricultural lands, which negatively affected various agricultural, economic, health, security, environmental and other aspects. One of the necessary services for the individual and society in the city.

The increase in the number of buildings and houses at the expense of agricultural lands constitutes a great burden on them, as their area decreased, production decreased, and the income of some families working in agriculture weakened. It also led to an increase in the number of the unemployed, and thus unemployment increased in this society.

From the foregoing, the problematic of our study can be crystallized by asking the following questions: What is the reality of urban sprawl in the city of Batna? And what is the extent of its impact on agricultural lands? And what is the possibility and ways to confront or reduce it?

**Reasons and motives for the study:**

- Considering the studied phenomenon as one of the most important and complex phenomena that have not been completely eliminated. Awareness of the extent of the danger of the phenomenon in the various fields and aspects of life, social, economic, health, security, environmental and others.

- Considering the studied phenomenon as the most prominent and the most widely discussed and addressed phenomenon at the national and international levels.

-Getting to know more about the most important terms and basic concepts of the subject of the study that need clarification and defining more and more accurately in order to know the phenomenon and get to know it in a clearer and more accurate way.

**The importance of the research:**

- Clarifying the problem of urban sprawl, which is an increasing human phenomenon and has multiple effects in all agricultural, social, health, security and environmental fields.

– Clarifying the effects resulting from this phenomenon of urban sprawl on the agricultural crop in the region.

– Studying the causes of the phenomenon in all its aspects, while making use of geographical studies during the research to benefit from them. Finding scientific solutions based on advanced

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research and based on clear data and numbers to raise them. Being able to find other alternatives and conduct studies of residential areas in other low-density regions.

- The phenomenon is considered one of the important problems with negative effects and dimensions at all levels, especially the environmental one.

-That the urban expansion at the expense of agricultural lands led to desertification and what followed it from a decrease in surface and groundwater resources and a decline in agricultural production and in the green areas that surround the city to breathe from, and the negative effects appeared on the environment and on the economic and social conditions, And this expansion took a cancerous upward turn due to the high price of housing within the city and due to displacement and immigration.

Previous Studies: Many important studies in this field dealt with the phenomenon of urban sprawl, from several aspects that cannot be ignored. We mention them as follows :

1-A study by Mustafa Jamil Mustafa (Mustafa Jamil Mustafa Qabha, 2014) entitled The Impact of Urban Sprawl in the City of Jenin on Agricultural Lands and Its Most Important Causes and Contributing Factors. And the municipality's granting of permits to build on agricultural lands, all of which resulted in the loss of large areas of those lands.

2- Askoura study (Askoura Ibrahim Al-Sayed, 2005, pp. 164-188) aimed at diagnosing the current situation of urban sprawl on agricultural land, following up the phenomenon of urban sprawl on agricultural land, following up the phenomenon of urban sprawl on agricultural land, determining the time periods in which it was active, and studying Overlapping the urban margins through the urban-rural integration of the rural areas that joined the city, and monitoring the factors that led to finding alternatives to avoid them, through a case study of the city of Zagazig, Egypt. The study relied on documents, statistics, and personal interviews with residents and officials. Those concerned with building on agricultural land announced the Prime Minister's announcement during this period, who promised to find a solution to their problems related to buildings that were built on agricultural lands. 2008, pp. 1-10) was to identify the nature of urban sprawl in China (LU BIN Study in terms of its causes and how to face its negative effects by applying it to the city of Shenzhen, which witnessed high rates, the study showed that, unlike western countries, where urban sprawl was a product of the trend towards suburbs, and that it is a desirable phenomenon, the researcher concluded that urban sprawl in China is a phenomenon of urbanization It is low in density, and is mainly a product of industrialization and rapid population growth.

3-A study by Samia Ali Al-Nimr Ali (Samya Ali Al-Nimr Samia, 1999), which dealt with the phenomenon of rapid urban growth in Khartoum, which is the spatial dimension of the phenomenon. Greater Khartoum, its urban features, and rural manifestations spread in it. The study also aimed to know the extent of the impact of the wide horizontal expansion of the city on

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its urban structure and urban development as a city and the capital of the country. The study concluded that this large horizontal expansion of Greater Khartoum affected its urban structure and urban development.

4-Miz'ach Salma (Miz'ach Salma, 2017) addressed in her study the problem of urban expansion and the extent of its impact on real estate, and possible solutions to address it. Al-Masila, and reached results, the most important of which is the fact that the polygraphic factor contributes to the expansion of the city and the increase in the price of real estate.

5-A study by Bouzgaia Bay (Buzgaia Baya, 2016) The problematic of the study was about the extent of the contribution of the expansion of the urban space to the achievement of sustainable development projects in terms of tools and plans for planning and reconstruction, and that the policy of expanding the urban area of the city so far has not been able to stand on it despite what has been allocated It has important procedures, budgets, urban tools, plans and human resources. **The study hypotheses:** The phenomenon of urban sprawl in the city is considered one of the most dangerous phenomena affecting the future of the city, both urban and urban, on the one hand, and on the fate of the agricultural lands that have grown and developed at its expense, on the other hand.

First: the conceptual framework of the study

### **1- The concept of urbanization:**

- It is that spatial organization that aims to give a specific system to the city, creating balanced organization and homogeneity in terms of functional spatial. (Ismail Ghulam Nemat, DN, p24).

For geographers, urbanization includes all the buildings and facilities constructed by man, as well as the people who work and live inside these buildings, and it is a comprehensive concept that is compatible with the concept of land reconstruction. Urbanization includes cities, villages, nomadic dwellings, agriculture and industry, as it includes the totality of human interactions with the environment. or lands.

**2- The concept of urban expansion:** the process of exploiting urban real estate in a continuous manner towards the outskirts of the city, as it is the process of creeping the fabric out of the city, whether horizontally, vertically, or in a rational way. (Dr. Khalafallah Boujmaa, 2005, p. 67). As for the urban growth, it means the spatial suitability for increasing urban land uses in the coming period of time, and growth represents a natural condition for the city because of the developments and changes that it is witnessing over time in various economic, social, administrative and cultural aspects in order to absorb its momentum, by providing appropriate spaces (Goodman; 1968) for those uses to exercise their functions therein.

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Urban growth varies in human settlements according to the current and future natural and human determinants that surround them, and the possibility of addressing them by allocating the financial resources required for them, and using technical methods and means to ensure this purpose, and urban growth includes the following types: (Thaer Mutlaq Muhammad Ayasrah, 2013, p. Unidirectional growth as Islamabad. Multidirectional growth. - Expansions of the fleshy form of growth such as Copenhagen and Washington. Two-way growth, like the city of Baghdad.

3- **Urban sprawl:** It is the term that refers to the leveling of agricultural land and the commencement of construction on it. Population increase and the greed of some real estate owners for the purpose of building and reaping profits are among the main reasons for this sprawl.

A multi-faceted general concept that refers to the expansion of a city and its suburbs at the expense of the surrounding lands. This phenomenon leads to the gradual development of rural areas adjacent to large cities and increasing their population density little by little. It also helps to raise the level of services in them, and causes the spread of the use of cars and modern means of transportation. it on a broader level. The definition of the term urban sprawl is not very clear, and it indicates a lot of controversy about the exact meaning. Some define it as the expansion of urban facilities at the expense of agricultural lands allocated for agricultural exploitation and production. (Al-Azzawi Dhafer Ibrahim, 205, p. 55.)

It also means the expansion of the city and its suburbs at the expense of agricultural lands and surrounding areas, as this phenomenon leads to gradually transforming rural areas into large cities with a high population density, and this expansion is uncoordinated and unorganized. Although there are some differences in the definition of urban sprawl, there are some points that are similar in terms of the fact that urban sprawl is uneven, unorganized, and unplanned growth that leads to unequal expansion of natural resources and services, and it is a global problem that all countries suffer from at the level of the world.

4- **The concept of the urban fabric:** it is called the built cells, spaces, and the urban milieu, and we also call it from a space point of view the urban form that consists of physical elements such as the site and the various networks, the soil fragmentation, the built and unbuilt spaces, the shape and quality of the building and the relationships that connect it. between them. It also takes a fixed form, such as the state of urban forms during a certain period, and takes a dynamic form for the possibility of development and growth of these forms. (Bin Darwish Awatif, Ashi Muhammad Al-Amin, 2013, p. 8) 5- Urban growth: a global phenomenon, rather it is a cause and effect, and one of the various ecological, social and economic processes that take place in all natural and human environments. When we look closely at urban growth as a system, specifically

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as a complex system , we need to reveal its unique properties that distinguish it from other complex systems.

And when it comes to the pattern of urban development, urban growth consists of urban expansion (according to our field of study) and functional changes. (Batty, Michael, Xie, Yichan, San Zhanchi, 1999, p1(

Urban growth causes overcrowding in urban centers within the processes of complex and dynamic urban systems, which generates pressure and accumulation of energy within these systems over time, resulting in growth at another sequential annular level of the urban dynamic system (cities), and the physical form resulting from numerical addition spreads, represented by urban proliferation like an epidemic that afflicts healthy regions, followed by the functional change that represents the qualitative addition resulting from The resulting quality of growth.<sup>1</sup>

1-Second: Characteristics of the urban growth of the city (Bouzghaya Baya, 2016, p. 110) Rapid growth: The rapid urban growth in Algeria may be the result of the quantitative growth of the urban population more rapidly than the rural population, and through the numerical growth of urban centers that shows the opposite, in reducing the Rural centers, that is, there is an inverse relationship between these two areas.

2- Urban demographic growth: In Algeria, the phenomenon of urban growth is basically a demographic phenomenon, basically similar to the population concentration, which is more and less rapid.  
3- Relatively uneven metropolitan growth: Rural population growth is slow compared to urban population growth, due to the high mortality rate in the countryside, especially among children, and poor health supervision in the rural environment. On the other hand, rural exodus is emptying rural centers and reconstructing urban centres. Third: Environmental dimensions of urban sprawl in the city :

1-The eradication of agricultural land and the spread of urbanization helps, to one degree or another, to pave the way for desertification.

2-The random growth of housing contributes to air and electromagnetic pollution, groundwater and soil pollution, in addition to pollution resulting from waste of all kinds, which leads to disruption of the environmental system.

3-Excessive or inappropriate exploitation of the land, which leads to soil depletion and the expansion of irrigated agriculture in arid areas without conducting prior studies to know the chemical, natural and biological properties of the soil and the properties of irrigation water, and not applying appropriate methods of irrigation and drainage, which leads to salinization and low

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permeability of the soil. (Anoud Al-Qaindi, Our Environment Magazine - Environment Public Authority, Issue 123).

4-The rapid population growth in the city, in which the unnatural increase had a major role, led to rapid urban growth, which resulted in an encroachment on agricultural lands, so its area decreased and thus decreased agricultural productivity. The real danger here is represented in the expansion of slums at the expense of agricultural lands, whether Was this agricultural land governmental or private.

**Fourth:** The effects of urban growth on the social and urban field of the city. In the social field, urban residents lack social ties and relationships, and many of them live in an atmosphere of fear, loss, and isolation, in addition to the lack of job and education opportunities. And social ties to violence and family disintegration. In the urban field, urban growth puts state agencies under severe pressure in order to provide facilities, services, buildings, and equipment in order to provide a decent life and livelihood for members of society. There are also problems related to traffic and transportation, and the increase in urban expansion at the expense of the countryside. The problem of lack of drinking water, the imbalance of sewage and electricity networks, and the overcrowding of transportation, (Abd al-Azim Ahmad Abd al-Azim, 1999, p. There is also a problem of housing and the high rate of demand for it.

**Fifth:** Forms of urban expansion of the city There were many views of specialists in city planning regarding the forms of urban expansion, as some of them stressed on two basic forms: the horizontal that prevails in cities located in the plain areas and surrounded by open areas, in which there are no natural or human determinants that limit its expansion. horizontal. (Atiyat Abdel Qader Hamdi, 1964, p. 101).

Some scholars believe that there are three main forms of urban expansion of the city:

A- Random expansion: the urban expansion of urban land uses without a previous plan, i.e. however one wants to sign these uses just because there are factors that help in establishing these uses, and it takes many forms such as the cumulative form that takes place by filling areas inside the city and building at its outskirts and outskirts, and the form of multi-nuclear expansion It is the emergence of a modern city near the old one, then these cities merge to form a large metropolitan city. As for the gradual expansion, it takes the form of scattered jumps, the aim of which is to create urban complexes that are not connected urbanly to the central city, but there are empty areas separating them from the central city. (Abdel-Fattah Muhammad Wahiba, 1980, p. 147).

B - Linear or network expansion: It takes the form of strips extending from the center of the city towards the outside with the extension of transportation routes.

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C- Axial expansion: It extends with the lines of transportation and communication, and wide spaces may be left between these extensions. (Salah Hamid Al-Janabi, 1987, p. 343).

D- Planned Expansion: This is done through the state's direct or indirect intervention in urban expansion, organizing it and equipping it with public utilities and services that aim at preventing the emergence of deteriorating residential communities and to provide adequate housing.

**Sixth:** Factors Influencing Urban Sprawl in the City

1- Social change in the rural family, where the formation of a new family did not require a new home. Rather, all families live in one home, the family home, in which the new wife prepares to serve her husband's family, and this form has completely disappeared, and some remain. Its effects where the new family lives in the same dwelling.

2- The increase in the number of young people with higher qualifications made them renounce agricultural work, which led to the neglect of agricultural land and their tendency to crafts, services or trade. Rather, the ruler sold his land for a guaranteed job for his children in the absence of the state's grip and the loss of its prestige.

3- The economic change of the rural population, as most agricultural workers join office or professional government jobs, and then leave agricultural work due to the existence of another guaranteed source of monthly income, which led to the neglect of agricultural land. (Fathi Muhammad Abu Ayana, 1990).

4- Building shops and renting them provides the farmer with the best income for agriculture, which has led to an increase in urban sprawl on agricultural land and a shrinking of its area. 5- The participation of the state itself in an official manner in the razing of agricultural land.**Seventh:** the effects of urban expansion of the city

This growth leaves both positive and negative effects, including:

1- Population growth, which is considered the main factor in the process of growth and urban expansion in all cities, and that means an increase in the demand for spaces to meet the needs of the population, which forces cities to retreat and expand. at the expense of the surrounding lands. (Buzgaya Baya, 2016, pg. 94)

2- Economic and social development: Cities are considered foci of the main economic and social activity in different countries, as they have the highest rates of change and economic and social development witnessed by countries, which accompanies this growth and change with similar growth in maps. Cities in terms of form and content.

3 - The spread of unplanned areas, which significantly contribute to the spread of social pests.

4-The inability to distribute security units within the region. Urbanization took place in the process of continuous expansion until it expanded in areas that suffer from a lack of services, especially health ones.

5- The problem of environmental pollution, especially in the industrial area, through air and water pollution and solid industrial waste.

6 - The problem of electricity, fuel and other resources. As a result of the increasing pressure on the



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distribution networks, we find that electricity is weak in some areas. (Abd al-Azim Ahmed Abdul Azim, 1999, p. 84

#### **Eighth:** Consequences and Causes of Urban Sprawl

1- The social development that affected the region in a short period contributed effectively to society and the individual in particular, who began to think of any means to obtain shelter for him, regardless of how, where, and the consequences of that.

2-Allowing the fragmentation of agricultural lands, which contributed to the establishment of some population centers, and the allocation of large areas of land. 3-

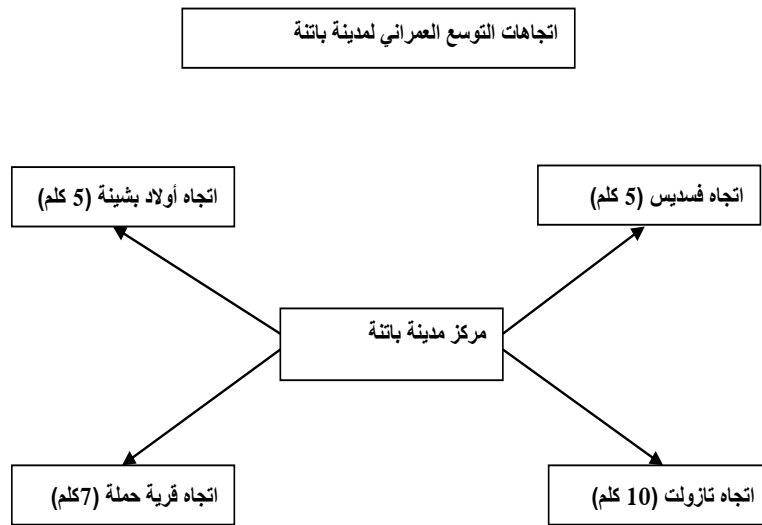
Allowing the establishment of more than one building on one piece of land, because its ownership belongs to more than one person. (Amna Jabbar Matar Darwish Al-Dulaimi, 2008, p. 104).

4- The residents of the region tended to work in governmental, office or professional jobs and left agricultural work, which led to the neglect of agricultural lands and their use for construction instead of agriculture. Urban sprawl has greatly and negatively affected agricultural lands, as their area has greatly decreased and urbanization has spread over large areas of them. (Latif Mahmoud Hadid Al-Dulaimi, 1999, p. 155).

**Eleventh:** Trends and Challenges of the Expansion of the City of Batna (Kawas Mustafa, 2005, p. 164).

The expansion of the city of Batna and its urban growth knew several directions, the most important of which is the southeast direction via (Batna-Tazoult road 10 km), which is a direction towards urban cohesion between the two centers in the future, and the direction northwest through the road (Batna - Hamla village 7 km), while the north direction is via the state road (Batna - Wadi El-Maa) and includes the areas of Awlad Bshina and Kashida, and it is a continuous reconstruction, then heading north-east via Fasdis Road (5 km).

This expansion, which was carried out through the four directions, was a linear expansion (Extension Lineaire) on the main structuring axes of the city, and the following figure shows the directions of the expansion of the city of Batna:



As for the most important challenges raised by the urban expansion of the city of Batna, we mention the following: (Kawas Mustafa, 2005, p. 8).

-The problems of growth that takes place through the axes of the main roads branching out of the city, which began to proceed at an irregular pace, which led to an imbalance in the urbanization and growth of the city. The existence of vacant pockets within the urban fabric of the city in which chaotic buildings were erected that affected the spatial and functional production of the city and its appearance. The delay in settling the legal status of real estate in the city's surroundings, and thus the low quality and level of a large part of the private buildings that are established in various locations in the city. – The horizontal extension of urbanization, which means the rapid consumption of the field. - The total consumption of real estate, except for the military area, and the area subject to inundation and flooding in the Park Forge neighborhood, which constitutes real estate in the hands of the authorities that can be exploited. The saturation of the urban fabric of the city of Batna after 1978 due to the emergence of unstructured individual housing in all directions (towards the south towards Tazult and all the outskirts of the city), which was the result of legal and real estate facilities for the use of the field.

**Twelfth:** The impact of preparation and construction tools on real estate consumption (Mizani Aisha, 2017, p. 339) The preparation and reconstruction tools represented, especially in each of the planning and development master plan and detailed land occupation plans, control the issue of real estate orientation and determining its use according to housing needs, as well as equipment On the various phases (short, medium, long), it defines, in particular, the master plan for preparation and reconstruction, the durable and buildable sectors, as well as the future reconstruction sector ,requirements in the light of these estimates.

#### :Field study

The site plays a prominent role in determining the importance and function of any place, as the study area is located in a field of expansion near the city, which is vacant land.

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The land occupancy plan No. 01 and 02 (the new residential community Campaign 1-2) is located in the southwestern side of the city of Batna. It is bordered (see the map at the end of the article) to the north: the road linking Keshida neighborhood and Campaign, to the east Keshida neighborhood, and to the west the military barracks and state road No. 161, and south of National Road No. 72 and National Road 03.

As for the connectivity of the field of study, it is clear through the national road No. "72" leading to the division and the national road No. "03.

Study methodology: In order to collect basic information and data that draws a general picture of the problem to be studied, the analytical descriptive approach was used, which defines the general field of the area to be studied, and goes to the field of research several times. Within it, it is the most suitable for diagnosing the studied phenomenon, defining the problem of the urban expansion of the city, which was a result of the emergence of these new residential communities, and addressing the characteristics and advantages of these communities as they are in reality, and the various aspects of their impact on the urban field of the city. With regard to the case study method, we helped to obtain the basic information by which behavioral studies can be planned, due to the availability of in-depth information that leads to the formulation of hypotheses that lead to further behavioral research.

As for the historical approach, it contributed to highlighting the most important different historical periods of the stages of development and emergence of the phenomenon, and the statistical approach was to analyze the field results and calculate their percentage.

We also used the simple standardized form to collect the necessary information and data for the study, which was designed in the light of the theoretical study, and distributed to the study sample, which is a regular random sample in which it is assumed that all the research items are known, as well as the homogeneity between them in the characteristic to be studied, and a percentage of 10% was chosen, It included two basic phases, one of which is survey to review the field and verify the number of buildings, then collect information related to the research, and the second to fill out the research form, and this is after selecting and defining the sample through the data available to us.

#### **Conclusion:**

Through our study of the phenomenon, we find that it is one of the most important phenomena and the most influential and changing the urban field of the city, so that its fate and its historical, civilizational and urban future is mainly linked to the extent of control and the ability to direct and organize this urban field of the city, and to confront the random expansions towards the outskirts of the city, and this is with the contribution of The master plans for planning, development, and land occupation plans to carry out its tasks and role as an organization, procession, and control of this unlimited urban sprawl.

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And the results we have reached confirm to us the extent of the effects and changes that the phenomenon brings about at various levels and fields in influencing the urban field of the city and its urban and urban future, which we summarize as follows:

1-Results of the study at the field level:

-The direction of urban growth towards the suburbs and urban outskirts of the city of Batna :

Due to the expansion of the cities, which led to the depletion of land plots within its urban surroundings, this led to the tendency to relieve population pressure from the city center towards the outskirts and surrounding suburbs, as is the case in the city of Batna, where its suburbs experienced a large growth parallel to the growth of the city. Mainly in new residential communities campaign 1-2-3.

-The absence of a general structure that governs the process of construction and reconstruction, and allows achieving a harmonious and organized urban fabric, in addition to the absence of an urban space that enjoys all the basic elements and components (roads, green and public spaces, playgrounds, equipment, various public facilities...), and the weakness of the social class Materially and culturally, to which the residents of the area belong, which explains many data (the state of school dropout, unemployment and poverty, poor income and standard of living of the respondents, the prevalence of social ills...), also the presence of the concerned area outside the general environment of the city as a whole, due to the absence of integration elements. Sufficient to allow interaction and exchange between this area and other neighborhoods.

-Unprecedented urban sprawl in the area, which led to excessive consumption of the area, and a radical transformation in its urban appearance. It negatively affected the agricultural character and the environmental community in general.

-The weakness of the orientation and reconstruction plan and the land occupation plan in directing urban expansion and organization, which led to random consumption of the area.

- **The results of the study at the hypothesis level :2**

-The youth of the study community, where the largest percentage was represented by young people, while the rest are elderly and retirees.

In terms of the number of family members, it ranges between 2 and 6, which indicates a lack of childbearing and preference for the nuclear family, and in a lower percentage for those who prefer the extended family. Its development (apartments). With regard to the geographical origin of the population, most of them came from within the city, specifically from the chaotic and traditional neighborhoods, where the aspects of living are poor and difficult, and the high prices of rent and real estate

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-Most of the respondents expressed their dissatisfaction with the phenomenon of construction on agricultural lands and justified this for several reasons, including desertification and soil erosion, the risk of floods and earthquakes, the lack of security and health centers, and the necessary facilities, and the phenomenon of pollution as a result of poor sanitation and waste dumping in the wrong place.

All of them are the effects of negative aspects resulting from the phenomenon, due to poor planning and the absence of laws and the role of preparation and reconstruction tools, with the absence of prior planning and the involvement of citizens in it.

-We recorded significant percentages regarding the lack of educational, cultural, recreational and health facilities in these urban forms, as the highest percentages were recorded by the respondents (yes), and this indicates poor planning and construction for this new residential community.

-The collective building pattern is 100% dominant in these residential communities (buildings consisting of 5 floors), and the use of the ground floor of the buildings for non-residential purposes (trade, crafts, car depot...), as the basement of some buildings contains warehouses that are sold or sold rent to its users.

-Satisfaction with housing was expressed as yes by most of the respondents, and this is due to the difficulty of obtaining alternative housing due to the high cost of real estate, difficult conditions and simple living possibilities, and dissatisfaction may be due to its distance from the city center and the lack of various social facilities.

The conditions of the field of study are expressed in lack of cleanliness, lack of drinking water, poor condition of unpaved roads, and the presence of valleys, the highest percentages express this in different and close proportions. Earthquakes, present or in the future.

-The existence of two basic types of housing: contributory housing by the state and private individuals, and promotional housing represented by the state (OPG). - In terms of the type of ownership of the land and according to the information obtained by the technical interests of the municipality and in cooperation with them, the real estate nature was determined to be the property of the state. With regard to contracts, here is an ownership contract for apartments that are bought and paid in cash (contributory), and rent for the Tarqawi housing, where the inhabitant of the apartment pays a monthly amount. Determined by the state and recorded in the property contract.

#### **Suggestions and recommendations:**

- Work on educating citizens about the problem of urban sprawl and its danger by distributing publications and magazines to show its damages. Work to reduce the issuance of building permits on agricultural land.

- Work to encourage citizens to work in agriculture and invest agricultural lands instead of neglecting them and using them for construction.

-Providing guidance to farmers who work in agriculture through modern agriculture and how to

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use modern agricultural machinery in agriculture to obtain better production. Constructing multi-storey buildings instead of single-storey buildings. - Building

houses vertically to reduce the area of land used for construction, and working on building in rugged lands that are not suitable for cultivation instead of building in fertile agricultural lands.

-Achieving comprehensive development throughout the country to achieve a balance between urban and rural areas, to ease migration from the countryside to the city, through a balanced distribution of the population in the various regions. -

Making guiding housing plans and implementing them in a timely manner to meet the citizens' need for housing in order to preserve the balance between agricultural land and housing.

– Stopping the horizontal expansion of the city and resorting to vertical expansion in order to reduce the areas cut off from agricultural land for housing and other services. – Breaking the dominance and attractiveness of the city, by not focusing on industry, trade, infrastructure and services in it, i.e. distributing it to different regions, which leads to attracting capital and investment towards it, and thus the stability of citizens in their states.

-Create a balance and complementary relationship between the centers of the poles and the suburban neighborhoods through the signing of collective and service facilities.

- Not to convert the purpose of agricultural use to any kind of other uses except for extreme necessity.

-Restructuring the city center to give it an urban and historical role as a main center in the formation of the first nucleus by organizing movement and work, rehabilitating the existing buildings and establishing stopping points and revitalizing the commercial and service movement.

-Strengthening the rural network by evaluating agricultural capabilities and resources for this purpose, providing the centers with equipment and services, and directing the activity of their centers towards agricultural labor, which contributes to the revival of development for the major centers in the areas of transactions and relations in the city-rural and the fair distribution of functional development.

Rebalancing the urban network by controlling and organizing the development of urban agglomerations, by developing some of them and controlling the development of others.

-Adopting the principle of decentralization of equipment, especially structured ones, to house the population and relieve pressure on the urban pole, and propose poles of support and anchorage arranged closely to the urban pole of the city, due to its radiative effect, and to create an urban pole that decompresses this pole and reduces its influence.

Reducing the area of land plots, and setting strict laws and applying them to trespassers on agricultural lands. Limiting urban expansion at the expense of agricultural land, and directing it

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towards non-agricultural areas.

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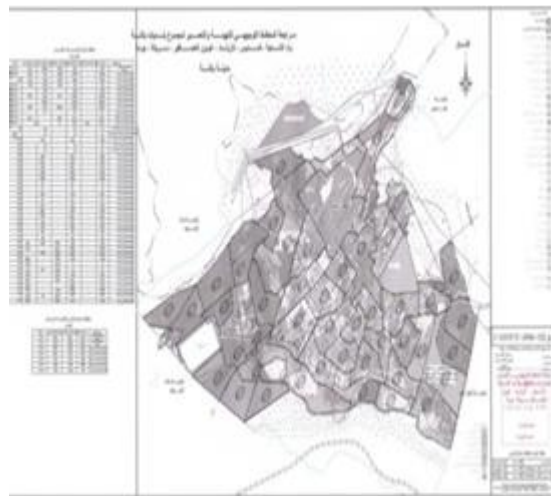
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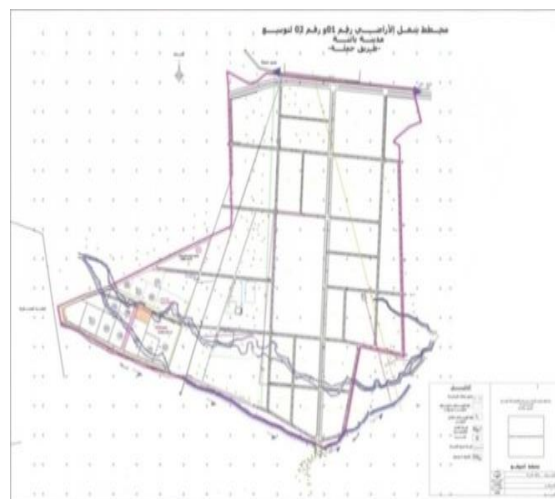
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supplements



Source: Directorate of Development and Reconstruction of Batna Province

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Batna: Lamouchi Hamza on March 12, 2018