

## Flexibility in Developing New Sustainable Cities

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### Abstract

*The objective of this document is to present the formatting norms for articles to be submitted to the Innovation, Technology and Management Journal. This document adopts the standard guidelines normally used for research articles, and thus, should serve as a reference for formatting and presentation. This sample article provides instructions to authors on some considerations to bear in mind. We request that it observes with attention the indications contained here, therefore a correct formatting contributes for a good evaluation of its article.*

**Key-words:** Sustainable Cities, Dimensions and Indicators, Environmental Resources.

### 1. Introduction

The development and spatial development and the development stage of new cities are of great importance in the stages of preparing the plans, with a focus on the importance of the flexibility of the plans to comply with the economic, social and administrative changes through the development and creation of urban cities and villages in the future, as well as achieving balance and coordination between human, service and industrial settlement in new cities and maintaining The environment of the new site with the provision of public services, and thus the surplus population can be absorbed from the existing rural villages and cities and their urban centers to the new modern villages to be a transitional stage for development and innovation with gradual developmental stages to a new city and large urban centers while preserving natural and environmental resources, especially agricultural lands, and creating axes New economic and social development through a balanced, integrated and flexible plan that works to provide factors of attraction and human, industrial and service settlement

in the new villages, and this is what the new development strategy calls for. Simulation of global experiences in the creation and development of new cities (dimensions and indicators). This part of the research deals with the presentation of a number of Arab, international and local experiences that focused on the foundations of innovation and its importance in the planning, development and development of new sustainable cities, and some lessons and indicators can be drawn from these experiences that can be used in the research.

## **2. Sustainable Development**

The community development and social change by relying on the development and investment approach by taking advantage of the sustainable and spatial dimension of the Nile River and the exploitation of unused lands) and change and development in the direction of technological development, in particular by activating the modern systems of the new sustainable city. All services across the city can be provided electronically It also covers 70% of the city with the global information network, the educational sector for schools and universities, and to enhance the economy of Egypt, job opportunities as human potentials in economic development, and on the other hand, the city provides service facilities to its residents with the presence of technology for sustainable cities and enhances belonging to a smart and sustainable city, simulating the hegemony of the blocks that make up the city and village fabric. Modernity creates a positive simulation of being a realistic replica of the new sustainable cities that are close to the human scale due to the strength of the interaction and the rural spatio-community interconnection to create a modern village scene and parallel to the new modern city[1] .

## **3. Dimensions of Sustainable Spatial Development**

1- The social dimension: the societal characteristics are heading towards a smart and sustainable city, so the population distribution of the city varies between young groups and the investment of human capabilities to provide job opportunities, in order to achieve a quality of life that provides well-being to the residents and all social groups from various services, administrative facilities, social participation and cultural awareness towards belonging For new cities in order to achieve the elements of comfort, luxury and connectivity, one of the planning principles and foundations for the new city, the city contained a wide range of different means of communication

that take into account the safety of the environment and help with sustainability and community facilities.

2- The cultural dimension: The integrated city policy attempts to solve the issues of local governance, administration and the provision of services within a legal and legislative framework by establishing an integrated city between urban and rural and the possibility of transforming and creating the modern village into new cities and integrating and integrating urban and rural cultures, as community development tends to enhance indigenous traditional knowledge. Encouraging creativity, culture, beauty and diversity with sustainable urban uses, energy efficiency, and technologies to aid social creativity, i.e. through amenities, sports, cultural and recreational facilities, improvement of aesthetics, diversity and cultural development of the built environment, accommodation, energy efficiency and resilient building technologies to strengthen the links between housing and economies based on culture and knowledge.

3- The economic dimension: the city's economic growth depends on encouraging the private sector to invest in development projects, providing a solid economic basis based on agriculture, industry, services and tourism, and encouraging sustainable industrial valleys.

4- Environmental dimension: applying the hierarchy in providing infrastructure-served lands in environmentally safe locations and green areas, providing infrastructure-served lands in environmentally safe locations and green areas, achieving a good location and density for residential areas while providing infrastructure, integrating constructed housing and sustainable green housing, and ensuring efficient use Energy, local generation, efficient use of water and renewable resources.

5- Spatial dimension: The geographical and spatial location and environmental conditions of the countryside and the city are one of the important factors, which are based on determining the form and type of urban planning required, and the forms of urban and rural planning differ according to the nature, shape and types of villages and cities. The nature of the city has a role in determining the type or form of planning based on the dimension and specificity of the place, and depends on the spatial concentration, natural resources, economic and service activities, with the development of future visions for the exploitation of the available resources and capabilities. To the city and especially the linear villages along the natural resource the river reflects the identity of the rural simulation of the river idea and the development of sustainable and compact new city planning for the garden city idea [2].

#### 4. Land Use Indicators

1- Mixed use pattern: the new cities are characterized by the overlap between uses within the different sectors of the city, that the pattern of use in the city is public spaces, residential use and green spaces as recreational areas and an outlet for the city with the presence of the river, which is the artery of the new city in its valleys, and the benefit from the reduction of building spaces in increasing green spaces The diversity of uses and its planning in the form of a valley that has a specific service that distinguishes it from the other valley, such as the Valley of Knowledge with education and universities, the Business Valley with industry and commerce, and the Green Valley with tourism and entertainment.. Ease of access to use Organizing uses within the sectors of the new city in a way that gives the possibility of connecting to any use within the residential neighborhood for a period of no more than (20 minutes) due to transport based on public transport on (TBR)

2- To plan new sustainable cities is to create a city for pedestrians and bicycles as well as connection with roads The highway surrounding the city and the regional ring road passing through the heart of the city, which passes the most important investment activities within the city and its surrounding urban communities

3- The approach of the new sustainable city is directed towards creating a quality of life that achieves for its residents the elements of comfort, safety and living well-being within the place and reducing the percentage of environmental pollution, so the ease of access in the city lies in relying on the least effort and least pollution means of transportation by providing the transportation system (TOD) and the mixed use of the land for commercial and administrative The entertainment, sports and events that bring together the events with the presence of digital sensing systems within the kinetic paths according to the smart applications of the new city community. Diversity in use Diversity of land uses due to the possibility of access to uses within the spatial dimension of the availability of public transportation in the new sustainable city in a way that achieves the elements of comfort and safety with the combination of uses (mix use) gave the possibility of diversity of activities within the different sectors of the city The pattern of mixed land uses for the candidate city for development.

4- Diversity of uses due to the possibility of access to events and the adoption of mixed and multi-story use Allowing the possibility of diversification of events within the city sectors and the movement of events within pedestrian paths and achieving the elements of sustainability protection and safety due to electronic sensing systems and digital monitoring of urban spaces mixed land use pattern.

5- The proportions of land uses The usage plan clarifies the reduction of the proportions of administrative usage such as postal services, police stations and government institutions and focusing on adding green spaces and the sustainable green river, the commercial and recreational project and public spaces as a use of the idea of the green river (the central park) by adopting the concept of the green city as one of the planning foundations for the new city Reducing the rates of use in the new city helps to collect activities to achieve functional integration and mixed use to invest in increasing green spaces and simulating the green park city and smart cities [3].

## **5. Development Indicators**

1- The pattern of spatial expansion and urban extension to include from the main centers to the outskirts and outside the administrative borders to include untapped areas, whether desert or abandoned areas to adopt mixed use of the city center and the aim of which is to invest spaces in enhancing and increasing the spaces for open and green spaces and their rural character and developing the economy in the supply of information infrastructure And the adoption of the technological nature and the economic dominance of the specificity of the fabric of the new cities, and the dependence on the distance and the specificity of the place of the city, which is reflected in the identity of the rural simulation of the idea of the green river, the central garden and cities planning the idea of valleys by adopting the concept of the green city as one of the planning foundations for the new city with the presence of gatherings within the various sectors and valleys of the city to reflect the principle of gradation from year to The private. Establishing urban hubs with functional contracts with development centers and economic power, characterized by a gradation between the private space of the residential area, the recreational and commercial space, and urban spaces that reflect the privacy of the new city, which is attractive and active for the community inhabiting it.

2- Social change as a result of urban expansion or expansion that moves abroad to embrace the countryside and the semi-desert areas and the outskirts of the city outside the master plan and the untapped areas, which leads to the intervention of the village in the city. Rural urbanization) and future development, social change led to the creation of an advanced and advanced system in terms of social, economic and environmental terms, exploitation of resources and spatial capabilities, and finding an alternative solution for cities overcrowded with investment and overcrowded in urban centers and the creation of new cities in accordance with the state's development planning plans.

3- The spatial interdependence of new cities depends on sustainability and green spaces with compactness and mass cohesion within the city sectors and the adoption of smart public

transportation, and the main transportation methods for the spatial organization and compaction of the city center within the urban space for economic and recreational activities. The development of urban hubs with functional contracts with development centers and with economic strength contributes to the expansion and sustainable horizontal spread through the extension of the city along the river, natural resources and the main transportation routes for the spatial organization and compaction of city centers within the urban space for recreational and commercial activities [4].

## **6. The Goals of the New Cities Include Basic Goals for the Creation of the New City**

The goal of the new cities is to create a sustainable place for a community that has all the requirements of comfort, ease of access and safety. The project was designed to reduce energy use and facilitate services in the city and to achieve the quality of life for its residents by adopting simulation and modern technologies and gradual planning transformation from the village or unused lands to a model for a modern village sustainable or semi-urban cities and then to large urban cities. The first goal is an engine for economic growth by investing modern technology for industries by adding industrial agriculture industries on sustainable foundations. The second goal is to create a sustainable garden city by simulating and integrating the countryside into the city. The third goal is to attract societal groups to absorb the surplus population in major urban centers and reduce pressure on them and create job opportunities as human potential in the development of the modern society of the city with the capabilities of modern technological technologies [5].

## **7. Foundations of Sustainable Planning**

The foundations of the planning idea, the foundations of sustainable planning for such pioneering urban communities and natural spatial interaction, were taken into account and simulated by analyzing the mother and modern villages and new sustainable cities by adopting the concept of innovation and development for rural villages as one of the planning foundations for the new city, for the location of the villages and cities candidate for development and innovation on the most important development axes, which It is considered a meeting point for more than one developmental axis, an industrial and agricultural axis, and a large group of industries are concentrated in it, which were economically based on it and characterized by a population nucleus based on agricultural development and light industries, as well as its relationship with regional road networks and the natural elements that the site holds to achieve the vision of future economic development. The new

cities have achieved a new environment for the community structure of rural villages and community development by providing job opportunities, so the data of the new structure of the city was reflected in achieving spatial belonging [6].

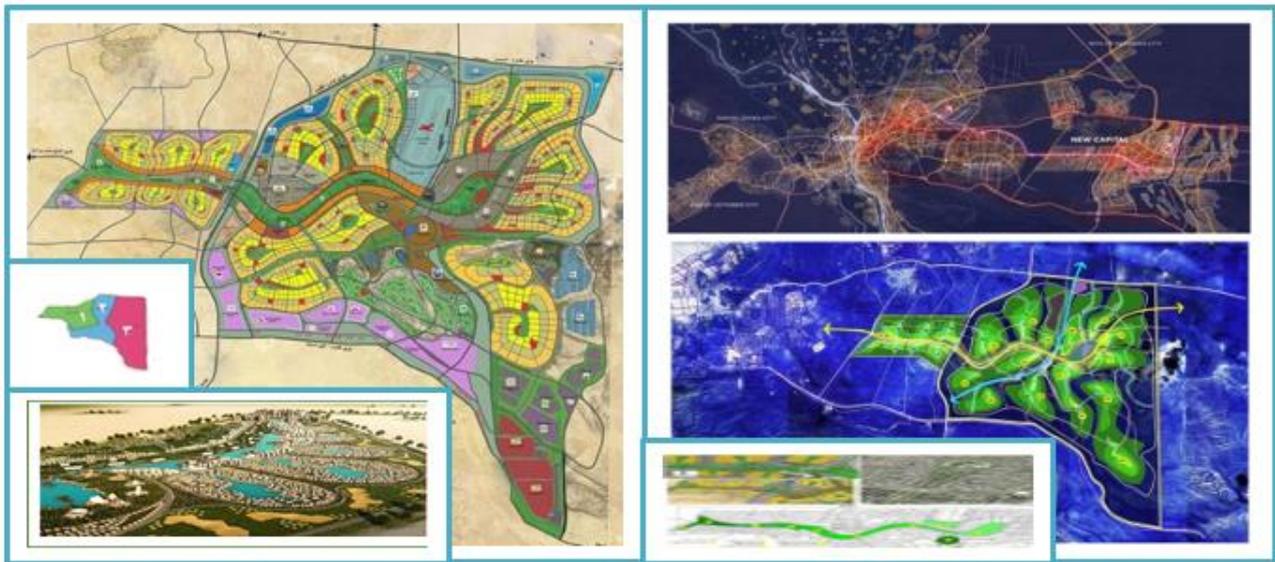
## **8. Foundations for the Creation of New Cities**

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## **9. The Most Important International and Arab Experiences and their Simulation with the Study Area- New Valleys City**

The city's planning goals are community development and social change by relying on the innovation approach and benefiting from sustainable rural villages, the spatial dimension of the Nile River, the exploitation of unused lands, change and development towards technological development, and in particular by activating modern systems for the new sustainable city. All services across the city can be provided electronically. It also covers 70% of the city with the global information network, the educational sector for schools and universities, and to enhance the economy of Egypt, job opportunities as human potentials in economic development. A sustainable center, and the city of valleys is one of the developed cities as a planning direction for a new sustainable city It is located to the southwest of the city of Cairo at a distance of (50) km and is located on the Nile River Delta. [8].

Figure 1 - The Location of the New City in the Valleys [8]



## 10. Spatial Planning Dimensions of the New Valleys City Analysis

The dimension and privacy of the place The urban extension to include from the main centers to the outskirts and outside the administrative borders to include the untapped areas, whether desert or abandoned areas to adopt the mixed use of the city center and increase the green spaces and their rural character, and the specificity of the spatial dimension of the city of valleys is reflected in the identity of the rural simulation of the idea of the green river, the central garden, by adopting The concept of the green city as one of the planning foundations for the new city with the presence of gatherings within the different sectors and valleys of the city to reflect the principle of gradation from the public to the private, and the spatial interdependence of the city of valleys depends on sustainability and green spaces with stacking and mass compaction within the sectors of the city and the adoption of smart public transport, and innovation is concerned with the human and spatial dimension, which Flexibility as it accommodates development (rural urbanization) and future development. As for the usage pattern, the uses are mixed usage. The new city is characterized by the overlap between the uses within the different sectors of the city, that the usage pattern in the city is public spaces, residential use and green spaces as recreational areas and an outlet for the city with the presence of the river, which is the artery of the new city in its valleys, and the benefit from the reduction of building spaces in increasing the spaces The green valley, the diversity of uses, and each valley has a specific service that distinguishes it from the other valley, such as the Valley of Knowledge with education and universities, the Business Valley with industry and commerce, and the Green Valley with tourism and entertainment. The sustainable commercial and recreational

project and public spaces as a use of the idea of the green river (the central park) by adopting the concept of the green city as one of the planning foundations for the new city [9].

## **11. The Millennium Village in London**

### **Dimensions and Foundations of New Cities in the Millennium Village in London**

The goal is to create a sustainable place for a community that has all the requirements of comfort, ease of access and safety, and the project was designed to reduce energy use and facilitate services in the city and to achieve the quality of life for its residents by adopting simulation and modern technologies and transforming the village into a model for a modern sustainable village and into an urban community.

1- The social and cultural dimension: the society in the modern village is a society that constitutes at a rate of 80% of the original citizens and 20% of the immigrants. The main point of the community attraction is to move away from the city and go to the natural healthy rural environment, provide job opportunities and achieve self-sufficiency for the different groups of society due to the economic strength of the modern village. The concept of community well-being for all residents of the village as a model of the modern village that achieves its affiliation for its residents. It enhances interaction and social rapprochement by providing services and social facilities while reducing social differences and for different age groups and on the different cultures inhabiting it and attracting them. The government developed the concept of an integrated city to overcome the gap between urban and rural in policies and planning. In all sectors, the cultural aspect includes education and health, and the state has followed the integrated city policy and is trying to solve the issues of local governance and administration and the provision of services within a legal and legislative framework by establishing an integrated city between urban and rural and the possibility of transforming and inducing the modern village into new cities and integrating and integrating urban and rural cultures [10].

2- The economic dimension: the modern village was chosen due to the economic resources (agricultural industry and tourism) in addition to the technological investment sector, especially as the income of individuals ranges between medium and high. Either technology has given a new direction. Modern villages are characterized as compact and sustainable villages, similar to compact cities with a solid economic foundation, in addition to services, preparing the village for a new stage, which is its creation and development into new cities. Encouraging public and private investments and linking them regionally with large and neighboring cities that contribute to development and strength within

the future development plans. Commercial and industrial development and economic growth contributed to the development of the vital joint of the modern village and its relationship with cities by linking it to the transportation network

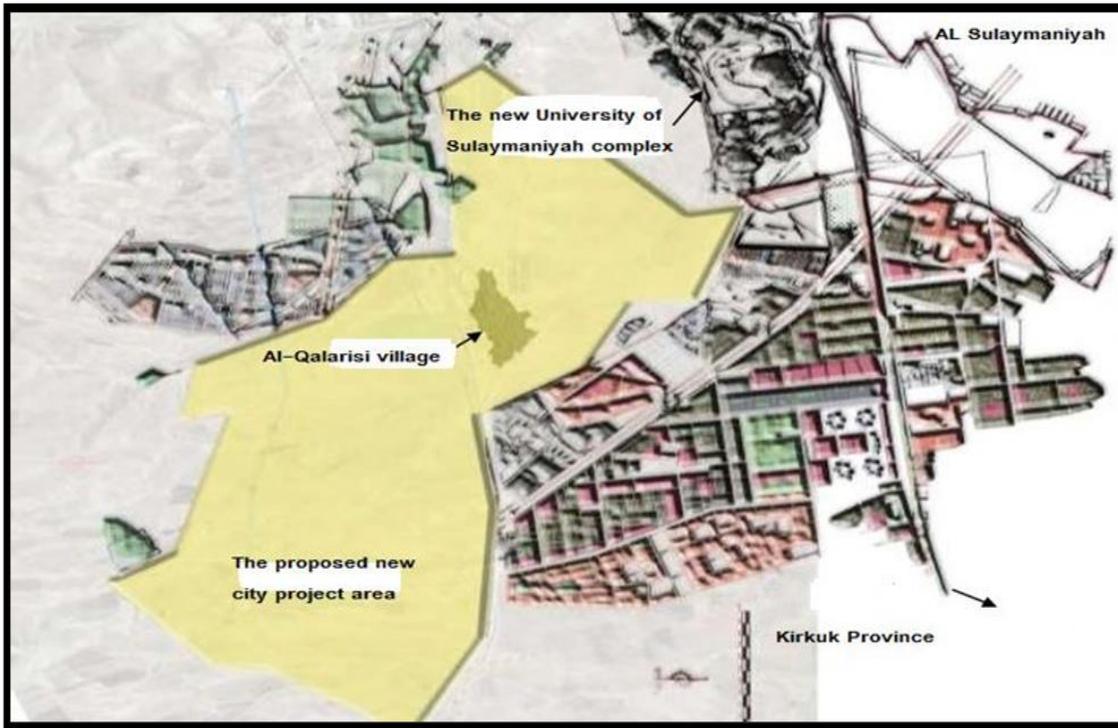
3- The environmental dimension: One of the first initiatives to transform the village into a modern village is the interaction and participation between the community and the government. The service sector: includes a healthy, green, sustainable environment and energy efficiency when designing housing. Encouraging the use of modern technology in sustainable industrial agriculture and designing fertilizer factories by making use of green waste. Promoting sustainable management by promoting integration between the management of water and land resources. 4. Reducing usage rates for a number of activities adopted on modern technologies such as government departments in exchange for increasing recreational and commercial use and administrative offices contributed to the development of the modern village, which qualifies it and within the future plans of innovation to develop it into new future cities. 5. The factor of the privacy of the modern village reflects the economic and technological strength of the agricultural, industrial and recreational nature, and the spatial dimension of the village and its location on the river reflects the diversity of uses, especially commercial and recreational, that distinguished the village and its modern fabric from the old and traditional village fabric [11]. International and Arab experiences share their nomination for innovation and development with developmental capabilities (social, economic, services) and can be summarized as follows.

- 1- The advantage of the spatial location is the mediation and centralization of the location of the new urban center.
- 2- Connectivity with regional - local communication networks (existing and targeted).
- 3- Determining the target population size for the new cities and the services to be provided.
- 4- Economic resources (agricultural and water resources, industrial tourism, commercial).

### **The Village of Al Qarisi**

It is considered one of the major strategic investment projects due to the importance of the spatial location of the village and adjacent to the tourist resort of Sercinar in the east And Rabrin in the west, about 7 km away from the city center, due to its wide area, especially the untapped lands surrounding the village and the importance of its location, as it has become an attractive nucleus for development and creation, especially the western axis of the city of Sulaymaniyah.

Figure 2 - The Location of the Village of Qalarisi



The importance of the natural spatial resources of the village candidate for development and creation, especially the tourism economic investment, and the development of the economic, social and service aspect by creating the village into an urban center that attracts the population and to reduce the population's pressure on city centers.

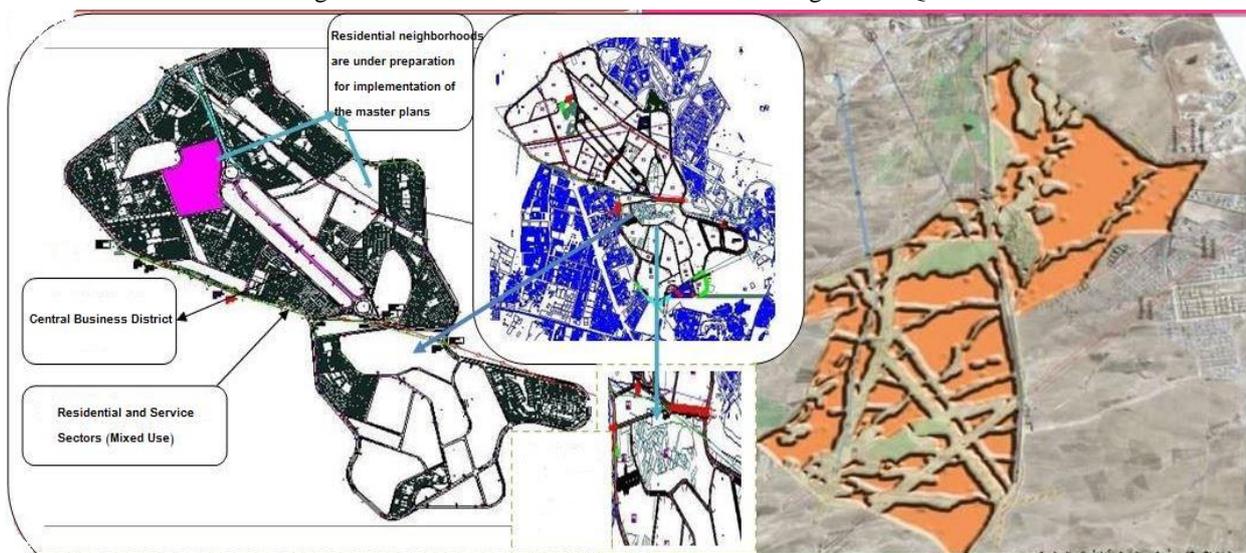
The total area of the project for development and development is about 65,549 hectares. Its center is the village. The project area is characterized by an irregular stripe shape, the length of its side is more than twice its width. A basic plan for the new city has been drawn up according to the standards of large cities into sectors, neighborhoods, shops and a large main commercial center in the form of a commercial street The scheme is divided into two halves and is considered one of the major commercial centers

The proposed project is considered a strategic project and an urban extension to the back of the city of Sulaymaniyah and a project to restructure the housing settlements. The idea, goal, strength of innovation and development and the power of future attraction lie in the housing of low-income families and contribute to solving the problem of the crisis and limited housing, especially in city centers and reduce pressure in them, and contribute to activating sustainable new city projects. It is considered one of the large projects with huge investments with a regional dimension to solve the problem of spatial disparity and the development of the planning aspect and relying on the study of

the spatial dimension and benefiting from filling in the blanks in the outskirts of the city of Sulaymaniyah.

And the basic plan for the creation and development of the village of Al-Qarisi and the identification of lands suitable for urban use to the new city [12].

Figure 3 - The Plan for the Location of the Village of Al-Qarisi



The project was reviewed through a regional and urban planning perspective, each of which includes a number of aspects in choosing the site as a region, and in the development of new cities. The analysis of experiences is important in simulating the reality of the experience with the reality of the case of the study area to benefit from it to determine the most important findings of the world's mechanism in the field of creation and development. The new city centers to facilitate access to the most important planning foundations and standards for the plan. As for reviewing the theoretical aspect and concepts as a whole, the planning foundations, indicators and standards were reached and their impact on the development and creation of modern villages and new cities and their relationship to each of the global and local cases and the extent of their interaction, benefit and application with the Bassamah study area. Through it, it is possible to measure the probability of success of the new cities, and it concludes with a set of general planning foundations that must be available in the plans and alternatives for the new cities, in order to be crowned with success by evaluating the alternatives and choosing the best alternative within a general strategic vision for the development of the district and its emerging status.

The experiments can be benefited from and applied to the reality of the study area, i.e. the adoption of experiments and their simulation (positive simulation that combines two or more

experiments to produce a base plan and design for a new sustainable city, and this will be applied to the proposal for planning and developing the new city in the Bassamiya district, which can benefit from the experience of the valleys by taking advantage of the planning valleys and the diversity of uses in these valleys, which preserve the sustainable rural character and the experience of the millennium village, which combined the sustainable urban rural reality, especially that the village corresponds to the reality of the status of the city center of Al-Basamiah planning and spatially (area and population size), and benefiting from the experience of the village of Al-Qarisi for the future development of the district and the adoption of The design, the basic plan, dimensions, goals and planning visions for the development and exploitation of the village and the regional dimension (its spatial neighborhoods are the untapped lands) and planning to connect them regionally with vital and large centers and benefit from them as a large investment project, residential low-cost units attractive to people with limited income and a large service center due to its diversity of uses, and a commercial project Great by utilizing From the commercial river that divides the region, it makes it a vital pulse, as well as to encourage tourism, as it is linked to the Sarcnar resort, and it is also linked to the University of Sulaymaniyah, the large educational complex. It is possible to take advantage of these spatial and developmental potentials and apply them to the study area and to plan the new city of Al-Basamiah and simulate it with modern future development visions.

## **12. Predicting the Use of (Beta Binomial Kriging) of Spatially Linked Ratio Models to Create New Cities (Geostatistical Simulation Model for Future Prediction)**

The method depends on the natural spatial distribution of potentials, observing changes in spatial variance, then mapping and exploring spatial variance and areas that are expanded and predicting data on spatial ratios weighted spatial correlation, where the distribution is one of the point prediction methods with latent probability distributions (community variables of developmental potentials), as the prediction depends on a point and converts it into an area (spatial point binomial prediction), as it depends on the distance between two locations, and the prediction of the spatial statistical model depends on the spatial simulation of the development potential, and it is one of the alternatives in making maps of data to be predicted for the future of new cities, and a scheme can be calculated From a prediction based on the distance from a point and the ratios of weights for spatial potentials to a city or irregular administrative borders, since the districts are unequal in size and shape, and the small areas are represented by the size of the development box, which converts the weight point of the development box into an area, and the large areas are the sum of the weights of

the developmental squares to gradual spatial spaces for future prediction, as the variable (potential for (for developmental sectors) of importance is seen as the product of a continuous spatial area with (community) changes and future spatial interactions, simulation of the creation and development of new cities, expansion and future prediction, the process is usually measurable not on a local (point) city scale, and it is in two ways: point transformation To the area and the area to points and include the areas of villages, cities and spatial areas as well as the area of development potentials the area of the developmental squares approved in the research by adopting the weight of the developmental square center (the center of area and future development forecasting) and for a larger area such as a regional or medium area (districts, districts, city and village), the statistical spatial analysis consists The model used in this model is one of the stages of spatial simulation in the data that depends on many methods (point and spatial) and by applying the equation, the spatial prediction can be obtained through the distance between the points of weights for the possibilities to reach the size of the prediction and future expansion.

$$\hat{Z}(s_0) = \sum_{i=1}^N \lambda_i Z(s_i)$$

$Z(s_i)$  = The measured value at the location of the study area (the areas and weights of the development potential).

$(\lambda_i)$  = The unknown (missing) weight of the measured value at the spatial location to be predicted.

$(s_0)$  = Forecasting location (the spatial location of the urban city center and the areas of expansion and development for future forecasting).

Number of measured values (weights are converted into points and then predicted areas= (N)

We conclude from the previous equation that the method depends on the data and weights of the developmental capabilities to be predicted, and as a whole, it is transformed into central points (the center of the development box) into distances (that is, the distance between the weight of the potentials, i.e., the center of the development box to the predicted point), and also depends on the total spatial arrangement of the points. Measured, i.e. measuring the spatial automatic correlation as a geostatistical tool for spatial interaction, which is a function of the distance indicator between any two points, then the points are converted into spatial spaces for expansion and development for the future prediction of the urban city center. For the developmental potential and predicted values of the Al-Basamiah Center, which includes (17) developmental squares covering the center of the newly created area, and the figure shows the stage of testing the model, spatio-developmental weight, in

order to obtain weights to predict them. Spatial correlation as a geostatistical tool for spatial interaction, which is an indicator of the distance between any two points. Scale to give a more significant weight of the binomial spaces available at each location, for binomial spatial prediction It is a linear geostatistical model, and the pattern of binomial variables is characterized by the spatial continuity of the response function, and it is a linear gradual formula for the natural properties to predict the linear function, as the shape of the weight depends on the correlation structure.

Figure 4 - The Stage of Weighting the Values of the Potential and Predicted for the Al-Basamiah Center.

Source: The Researcher by Applying the GIS Program

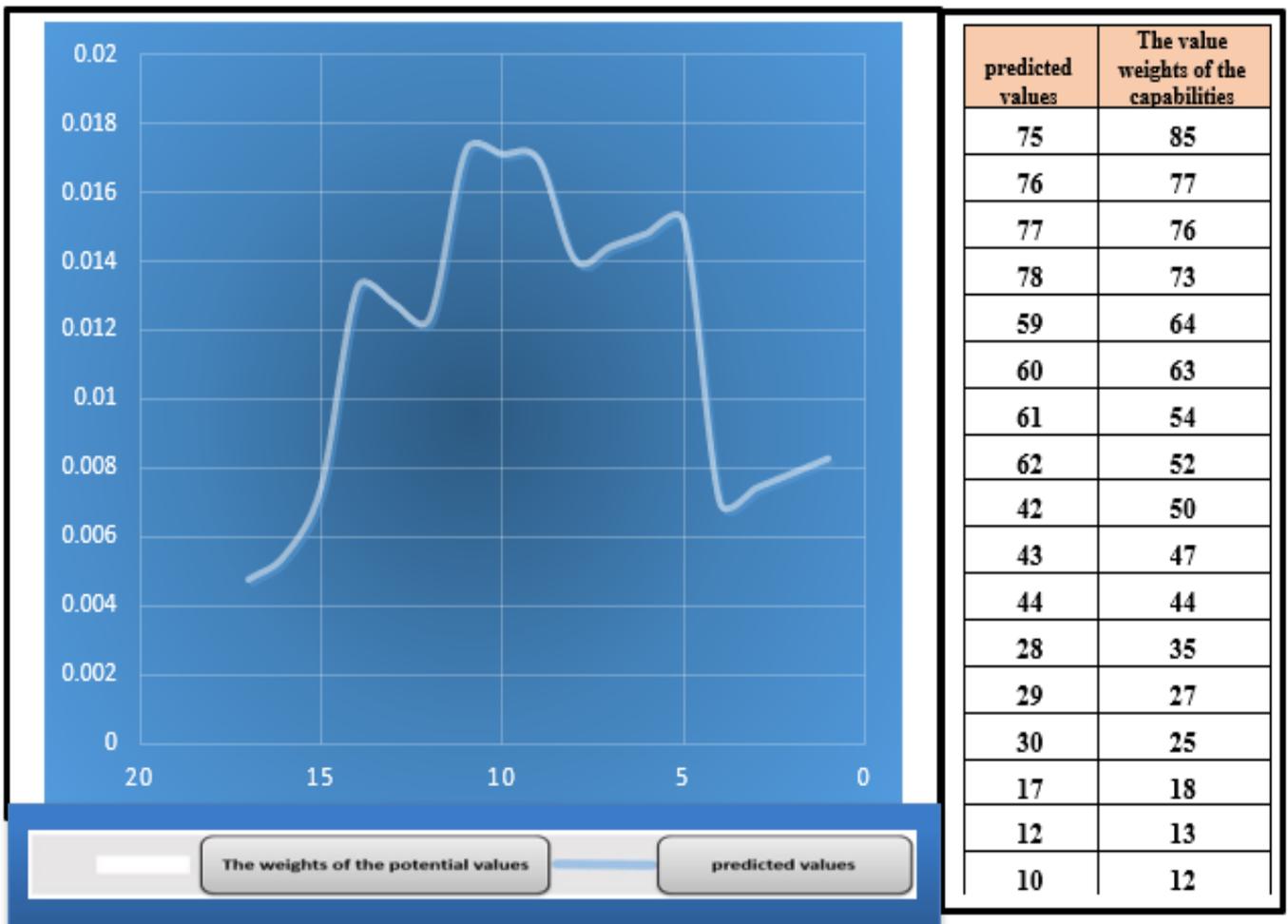
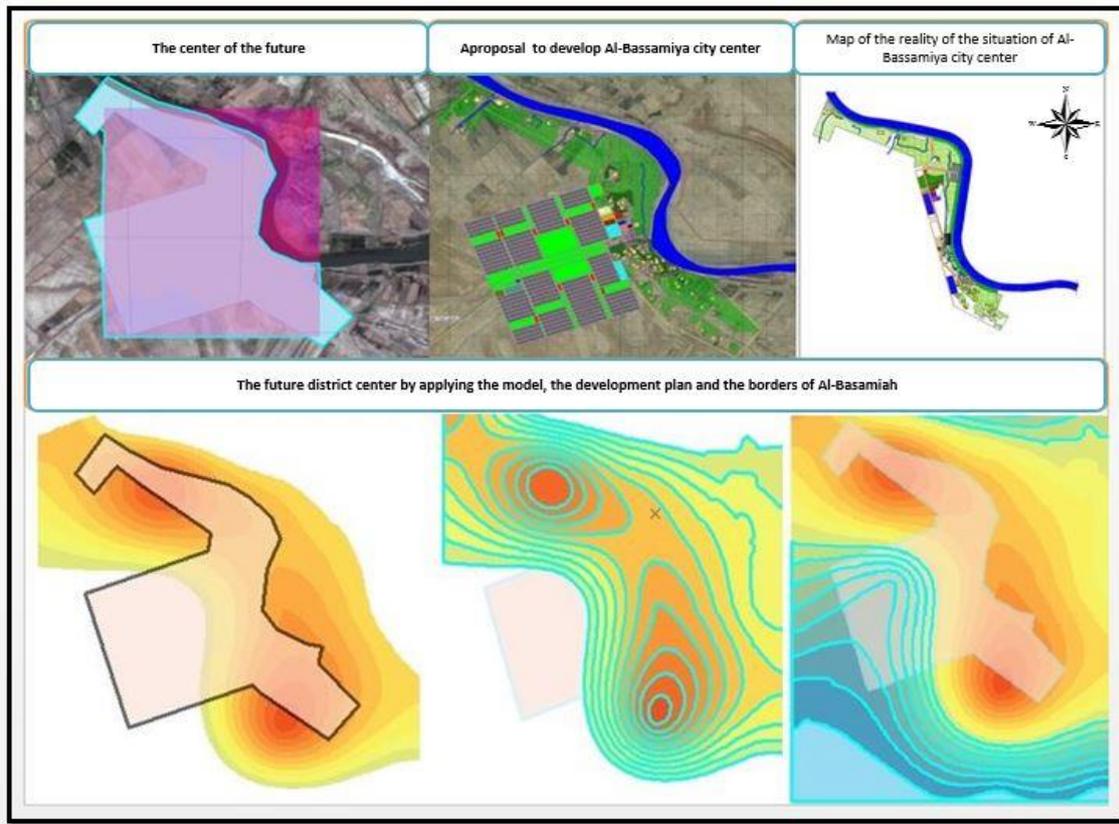


Figure 5 - The Stages of Development and Development of the Al-Basamiah Sub-district



It is possible to adopt the model that changes the shape and boundaries of the newly created Basmiya district center according to the gradual classification of geostatistical simulation and produces a new and different schematic form for the reality of the situation, the proposed scheme and the spatial future prediction as a second alternative.

### 13. The Location of the Study Area (Al-Basamiah Sub-District)

The spatial dimension (regional and local) The study area is the village of Al-Basamiah The study area is located in Al-Qadisiyah Governorate, which is one of the Middle Euphrates governorates, bordered to the north by Wasit and Babil governorates, to the east by Dhi Qar and Wasit, and to the south. Al-Muthanna Governorate, from the west of Najaf Governorate (180) km south of the capital, Baghdad. The governorate enjoys an important strategic location linked to a transportation network linking the governorate with the rest of the governorates and the astronomical governorate. The location of the governorate was determined between latitudes (31.17 and 32.24) north and longitudes (44.24 and 45.49) east, and the city of Al-Diwaniyah is located within the sedimentary plain and the delta region. It consists of agricultural lands mixed with orchards, starting



valleys and the diversity of uses and the adoption of the planning foundations for the local experience of the Qarisi experience as a large and sustainable residential, investment, service and tourist project and a simulation of the future development of the Al-Basamiah district.

#### **14. Foundations and Principles for Achieving a Comprehensive Development Strategy**

The goal is to study small cities, as is the case for cities that are close in space, all of which are located on the outskirts of the governorate and regional borders, and are at a certain distance from major cities and their development centers, which are characterized by having an impact on their regional surroundings in the field of future growth, land uses, urban activities, and regional transportation routes, and that a strategic plan Development at the governorate level should look at how to find regional balances at the level of Iraq as a whole and the possibility of reducing social bottlenecks resulting from the concentration of industrial and development projects in the governorate, in a way that ensures the reduction of human displacement from other areas of Iraq to them, in addition to achieving a balance between urban and rural areas and ensuring rural development to reduce From the displacement from the countryside to the cities, and both parts are integrated in order to reach a comprehensive strategic vision for the future of the region and to develop alternatives to modernizing the basic designs for it. The settlements form an urban network linking the cities and their centers with their regional surroundings. With its satellite cities characterized by a balanced geographical distribution that maintains compatibility between Urban and rural land uses and offers a wide choice of opportunities for economic growth and a high standard of living through a set of foundations and can be illustrated.

1- The principle of development poles, which means focusing development efforts towards two or three cities that attract additional regional priority.

2- The principle of urban corridors, which is the organization of development across different axes.

3- The principle of scattered settlements, which is the distribution of urban development to all the secondary regions of a new development area, which are large and small urban settlements, and accordingly it ensures the possibility of proposing integration between the two regions, one of which provides agricultural job opportunities and the size of the required workforce, which contributes to achieving relative stability and reduces the dependency of each of them To the centers of large cities, it is also supposed to provide the size and type of health and educational services and infrastructures suitable for the expected population size in them. Therefore, it must take place according to the

balance of population density and the stability of immigration rates, and this depends on the strengthening of an elected development contract during the early stages. These contracts can be acquired with Time is an important dynamic to become poles and gradually begin to take part in the role played by the major city in the region.

4- Ensuring the existence of a hierarchical hierarchy of the size of the villages in the relationship between the size of the population and the level of services to ensure the construction of an integrated system for urban and rural human settlements, down from the smallest village and passing through the medium and large villages to the sub-districts, districts and the center of the governorate.

5- The importance of reducing the level of poverty and deprivation and reducing the differences in income distribution.

6- Preserving the current agricultural land and orchards, especially from the random urban expansion and razing the soil, addressing its natural and human problems, and trying to increase the area of the agricultural area.

7- The simulated dominance of the blocks that make up the fabric of the modern city and village creates a positive simulation because it is a realistic replica of the new sustainable cities that are close to the human scale due to the strength of the interaction and the rural spatio-social interconnection to make a modern village scene parallel to the new modern city.

8- The factor of the interconnection of the rural fabric of the blocks and spaces gives the character of diversity and is interspersed with green areas of rural spatial spaces and untapped lands and the formation of various compact blocks semi-urban body, and is characterized by local and regional spatial interdependence, as it is characterized by the development and effectiveness of transportation and encouragement of current and future investments for commercial and communication purposes and regional spatial interconnection.

## **15. Conclusions and Recommendations**

1. Urban spatial development is a basis for future predictive and developmental spatial development and development that contributes to the gradual and spatial development of cities from a small city to major cities.

2. Rural spatial development is the basis for change (social, economic, environmental and technological), which is a turning point for future developmental spatial development.

3. Creating a new economic base that aims to achieve economic balance at the regional and local levels. The optimal investment of all potentials and spatial resources available within the rural areas, which helps in raising the economic capacity to ensure security and stability for the rural population in their villages and regions, and to develop and protect their future and develop the spirit of investment in them to provide investment security. And the development of an economic basis for the development of current and future production.

4. The analysis of experiences is important in simulating the reality of the experience with the reality of the case of the study area to benefit from it to determine the most important findings of the world's mechanism in the field of creation and development of new cities and to review the cases in total. The planning foundations, indicators and standards and their impact on the development and creation of new cities and the relationship of each case were reached Global and local and the extent of their interaction, benefit and application with the Bassamian study area.

5. By applying the future spatial prediction according to the reality of the situation, i.e., the spatial boundaries of the center of the newly created district, and by adopting the future spatial prediction while preserving the reality of the situation and in accordance with the proposed scheme. The model that changes the shape and boundaries of the center of the newly developed district, according to the gradual classification of geostatistical simulation, produces a new and different schematic shape for the reality The situation, the proposed scheme, and the spatial future prediction.

6. It is possible to benefit from the indicators of international and Arab experiences and to adopt modern planning foundations for the development of mother and modern villages and to develop them into sustainable urban centers for the centers of small towns according to the reality of the situation. Therefore, we conclude that there is an integration and simulation of a compact, diverse and spatially interactive planning idea, and the proposed master plan for the positive integration of more than one experiment to simulate the Arab and local experiences of the proposed master plan for the Al-Basamiah Center.

7. The comprehensive planning study imposes a review of the existing industrial capabilities in order to build a comprehensive vision of alternatives for spatial development in the future, and to diagnose the locations of these industrial and service activities by encouraging development investment projects for the population and services and outside the basic design of new cities and adopting the idea of industrial valleys (the Egyptian experience of valleys) to reduce the environmental impact Preserving sustainability and exploiting untapped lands to be an industrial valley for an economic, strategic, developmental basis that attracts the new area.

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