



Assessing the level of sustainability of urban neighborhoods in the city of Karbala

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Abstract

Background and Objective: Sustainable urban development is based on the principle that the space of a city is formed within neighborhoods and continues accordingly. Therefore, neighborhood development is considered a fundamental measure in achieving sustainable development. Therefore, the present study was developed with the aim of assessing the level of sustainability of urban neighborhoods in the city of Karbala.

Methodology: The research method is applied in terms of its purpose and descriptive-analytical in nature and method. The information required in this study was collected through field and documentary methods. The statistical population of the study consists of 6 neighborhoods located in the surrounding areas. In order to analyze the data and achieve the research goal and measure and evaluate the sustainability of the dimensions (social-cultural, economic, environmental and physical), the sustainability barometer model has been used.

Results and Findings: According to the indicators used in the research and the results of the sustainability barometer model in the present study, in terms of overall sustainability, the Abbasiyyah East neighborhood scored (0.90) at the sustainable level, the Abbasiyyah East neighborhood scored (0.82) at the potential sustainability level, the Abbasiyyah West and Al-Jamiyyah neighborhoods scored (0.53) and (0.54) at the average level, the Al-Hussein neighborhood scored (0.30) at the potential instability level, and the Al-Mukhaim neighborhood scored (0.04) at the unstable level. The average level of sustainability in terms of ecosystem welfare in the studied neighborhoods is 0.54 and human welfare is 0.50, indicating an average sustainability status for both. According to the results of the present study, the average of the studied neighborhoods in terms of overall sustainability is 0.52 and is at the average level. Given that the sustainability levels of the studied neighborhoods vary, development plans tailored to the strengths and weaknesses of each neighborhood and based on the sustainability levels of each of them are necessary.

Keywords: Sustainability assessment, Sustainability barometer model, Neighborhood sustainability, Karbala city.

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Extended Abstract

Introduction:

Urban development is one of the processes that has had numerous impacts on the social, economic, cultural, political and environmental aspects of human life in recent decades, leading to diverse and sometimes contradictory results in different regions. On the one hand, cities are known as centers of social, economic and spatial development, and on the other hand, they act as the most suitable places for the emergence of economic, social and environmental issues and challenges. In the city of Karbala, despite its pilgrimage role, the neighborhoods of this city have not been researched as much as they should be, and it is not clear which of these neighborhoods is more sustainable than the other in order to take action for sustainable planning and development. If appropriate measures and planning are not taken to control and improve the quality of the neighborhoods of this city, numerous problems in the physical, social, economic and environmental fields will increase day by day. These issues can lead to negative consequences such as urban ecological conflicts, social anomalies and dissatisfaction of the residents of these neighborhoods, and ultimately, they will challenge the control and supervision of urban managers and planners in guiding and organizing the city. For this reason, the need to examine and pay attention to this issue for urban policymaking and planning is completely justified. Therefore, the present study aims to measure the sustainability of the neighborhoods around the shrine, based on neighborhood sustainability indicators, and to explain the level of sustainability of each of the selected neighborhoods.

Methodology:

The type of this research is applied in terms of purpose and descriptive-analytical in nature. Documentary methods and library studies were used to conduct exploratory studies on the research topic and examine its background. These studies include reviewing books and works of experts related to the research topic and various articles available on websites. Also, using reports, statistics, tables and information archives of related organizations and departments is also part of the library method that can meet the information needs of the research. In the field method, the necessary information was collected by visiting the study area and collecting information about the current situation, as well as by surveying and questioning residents of the neighborhoods and directly communicating with the relevant realities. The spatial scope of the research is 6 neighborhoods located around the city of Karbala. The statistical population of the research is the citizens of the city of Karbala, which, according to statistics published by the Iraqi Ministry of Planning in August 2022, the population of the center of Karbala was about 592,380 people. In this regard, the sample size of the study was calculated using the Cochran formula and with a 95% confidence level equal to 384 people. Also, SPSS and Excel software were used to analyze the data and results obtained.

Results and Discussion:

According to studies on sustainability, the requirement for measuring sustainability is to examine the four dimensions of sustainability (socio-cultural, economic, environmental and physical). Among the various models used to measure the state of sustainability, the sustainability barometer model, in addition to determining the level of sustainability dimensions, can better reflect the reality of the current situation under study by providing the possibility of measuring the gap between human well-being and ecosystem well-being.

Since sustainability has various social, economic and environmental dimensions and ignoring any of the aforementioned dimensions leads to overall instability, the most efficient means for organizing and improving these settlements is to pursue an empowerment strategy along with paying attention to the various dimensions of sustainability. Neighborhood development

without comprehensive attention to the dimensions of sustainability is unfeasible. From the totality of the studies conducted in this study, this conclusion was reached, given that the Bab al-Qibla neighborhood is one of the most famous and vibrant neighborhoods that houses the main entrances to the shrine. This neighborhood includes many hotels and markets that provide services to pilgrims. Therefore, this neighborhood is in the first place and a lesson in sustainability in all aspects of the Bab al-Qibla neighborhood. The most important reason for the sustainability of the Eastern Abbasiya neighborhood can also be mentioned as the presence of traditional markets and hotels that welcome pilgrims. This indicates the level of economic sustainability of this neighborhood, which has a positive effect on the level of overall sustainability. In a general conclusion, it can be said that the level of sustainability of the studied neighborhoods in terms of overall sustainability with a value of (0.52) is at a medium level of sustainability.

Conclusion:

Given that Al-Mukhaim neighborhood is at an unstable level, Al-Hussein neighborhood is at a potential instability level, and Abbasiya Gharbiyya and Abbasiya Sharqi neighborhoods are at a moderate sustainability level, it is necessary to implement development plans based on the strengths and weaknesses of each neighborhood and according to their sustainability levels. For this reason, unstable neighborhoods should be prioritized for interventions and planning, and the necessary development policies and programs should be implemented by city officials and managers. In the next stage, it is necessary to simultaneously pay attention to expanding services and improving the current situation in various dimensions in neighborhoods with potential sustainability. Finally, improving the situation of neighborhoods with moderate sustainability is also important, because by carefully implementing these strategies, it is possible to improve the current situation and gradually progress these neighborhoods towards sustainable development.

Declarations

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