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# The Role of Beach Sports and community participation in Investigating the sustainability criteria in historic centers of AL- Hilla city

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**Abstract.** Babylon city (18-6 B.C.) located on Euphrates river which represents the First nucleus of the historic centers in the province of Babylon. The river coast has been an important part for thousands of years ago, as a socio-cultural activity. In (1101 A.C) historic downtown was found in AL- Hilla city south of Babylon city. The beach continued to be used for cultural and social activities similar to the past. Recently, these historic centers with their river coast are suffering from neglect, decay, and depreciation, as a result of, random urban planning.

This paper is an attempt to adopt an analytical descriptive curriculum to develop and revival the two historic centers, through employment beach sports, as well as depending on community participation in design decision, to harmonize sustainability thought and achieving human well-being in Babylon city. Its discussed the role of the beach sports to configuration river coast in the two historic centers and downtown, in another word, how can the establishment of beach sports play a basic role in Investigating the sustainability criteria in Al-Hillah city through community participation ?.

The conclusions show that the establishment beach sport activates in the city today achieve (57.3%)of the overall sustainability criteria, and it contributed in development of two historic centers in another word, beach sports activities establishment will be supported the sustainable criteria, as well as, the reason of the low achievement of the current sustainable criteria is environmental degradation.

## 1. Introduction

Today, the sports activities are considered community activities and civilization phenomenon, characterized by economic, cultural, and social dimensions in this city. [17, p:430-431][18, p194]. furthermore, it has a historical depth and association with monuments and heritage in AL-Hilla city, in another side, no research evidence of its potential to achieve the sustainability concept With no investment of its potential to achieve sustainability concept in the city and the river spaces and harmony with modern thought and achieve the well-being of humanity in this city.

Shatt Al-Hillah represented the First nucleus for the appearance of historic centers in the Babylon Province, such as, historic centers which go back to the (1101 A.C) and Babylonian city, which go back to the (18-6 B.C)[1, p10]. These two centers together contributed to the formation of the city's river spaces, and methodologies were different to develop the city's river spaces according to the philosophy which dominated in the different time period of the city history and how to deal with requirements and humanitarian needs. Since then The reign of the Babylonians and through the Islamic era until the end of the twentieth century the configuration of the river coast has been expressed of the



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philosophies (the ideal rational philosophy and positivism and pragmatism) and it was the living application of these philosophies.

As a result of, random urban planning (see Fig. 1) these centers with their river coast are suffering from neglect, decay. The research is an attempt to adopt a scientific Curriculum which contributes to the development of the city and revival of urban centers these historic centers with their river spaces in especially, In line with, the thought of sustainability And achieve Human well-being through Public Community participation. The public problematic of this paper ( there is a lack of beach sports in Al-Hillah city, don't achieve Human needs, and never exploitation the river coast, which is a negative effect on the city's growth), and public problem how can the beach sports play a basic role in determining the sustainability criteria and configure the river beach spaces in the city?.

there are set of research goals linked with the fields of sport and urban design, such as Studying the suitability of beach sports with historical depth in determining the sustainable criteria of AL- Hilla river spaces through community participation, furthermore, Detection the activating role of beach sports rooted in history to achieve the urban development of the city economically, socially and environmentally through community acceptance of these events. At the sports field level, the goals are to Detection the possible degree of modernistic Community interaction with beach sports which have a historical depth in harmony with current thought and applied dimensions, to determine the bases and rules of these games.to achieve the research goals the researchers adopted a descriptive-analytical curriculum contain tow axis( theoretical axis and The application axis )

The research conclusions show the establishment of the beach sport in the city now achieve (59.3%) of the overall sustainability criteria. these activations contribute significantly to urban development (economically, socially, and environmentally ), and its investment and financing(private and self), furthermore, there is a weak relationship between the community and historical depth of sport, also community sports continues with modern activities and there is a negative correlation (-.378-) is significant at the (0.05) level between achieving sustainable criteria and sample age, also there is a strong negative correlation (-.538-) is significant at the (0.01) level between achieving Environmental criterion and sample age, whereas the weak Correlation and is not significant at the (0.05) among other factors.

## 2. Literature Review

Sustainability is a difficult term to define, it has multiple definitions. In general, sustainability requires a balance between three dimensions; economic, environmental, and social. this definition means the indicators which utilized to measure sustainability must be calculated of these dimensions [3, p:2][19,p:3][20,p:8].

The sports activities contribute to social and cultural development through ( language, celebrations, national and regional identity, education, social norms as well as traditions and beliefs) , wherever is characterized as follows:-

- A. Sports events are featuring highly popular, as well as, its very interaction of all communities (Careers, age, And sex) in AL-Hilla society with these activates. furthermore, It has a high health and culture benefits. In another hand, it Supports and encourages the cooperation spirit, coexistence, and peace among the all society member, also it Supports the democracy thought and popular participation, as well as, it contributes significantly to support the national feeling and strengthen the link between human and the land. [4, p:7][5,p:5][21,p:2-3]
- B. The sport is characterized by thought and philosophical dimension, which is developed through the history stages development of the city, and the transition from classical philosophy (rationalism and experimentalism) to modern philosophy in the 20th century. the sport is a branch of philosophy that tries to create a concept of analysis of sports fields as a human activity. [6, p:4][22,p:45-48]. Since the period of Babylonians then Islamic then modernity periods and following period, the river spaces as an urban component reflected the applications and reflection of common philosophies [7, p:218]. The historical philosophical stages passed through three stages, and sports events were one of these areas affected by these philosophies as the follows:-

- 1) **1st historic stage:** - Philosophy of formulation river spaces in Babylonian(18-6 B.C). Philosophically, Babylonian society was affected by an ideal rational philosophy, where religion played a major role in Mesopotamia thought and practice. Historically, the ancient Iraqis have known Gilgamesh Games - the Olympic Games - before appearing in Greece more than 1000 years ago where they moved to the Phoenicians [9]. the excavations on ancient Babylonian antiquities and drawings on the walls of Assyrian civilization refers to the human has known swimming since the beginning of his presence on the ground more than 6000 years ago, as well as, Existence of the fishing sport which is documented with sculptures decorating the palaces and temples of Assyria. In general, the games were played in this period are (Swimming, boxing, hunting, Riding, shooting, Running Sport, canoeing, Carts pulled by horses, javelin, fencing Marathon, And celebrations. [8,p:46-48], [10,p:131], [11,p:235], [23,p:100].
- 2) **2nd historic stage:** - Philosophy of formulation river spaces in Islamic Period (1101 A.C).The river spaces were influenced by Islamic philosophy, which is an ideal rational philosophy, linking all concepts with the God and raise the value of Spirituality, so it has contributed to the development of river spaces and supported the games such us Swimming, Riding, hunting shooting Running Sport because it links these events with the ideas of protection, defense, strength, courage, nobility, and equestrian.
- 3) **3rd historic stage:** - Philosophy of formulation river spaces in the 20th century, In this Period The river spaces were influenced by the ideas of modernism movement and adopted the ideal rational approach through the ideas of architects Pioneers, such as abstraction, simplicity, purity, utilitarianism, and other concepts. As a reflection of this modern movement thought, the sport has evolved in all its types and reached the top of its evolution in the 20th century.

The sports activities are featuring to support the development of the city economic, this dimension is linked to three fields as follows:-

- 1) Urban development by raising the price of urban land and rents, and housing, also providing employment opportunities.
- 2) Marketing such us:- (rights of publicity and announcement marketing, television marketing, Tournaments and Games marketing, players marketing, Marketing of sports and social facilities, and Marketing internal and external services to the audience)
- 3) The investment is content two vectors:- Capital financing such us ( Government, private and self-principal), as well as, the operation such us (privatization and Convert clubs into joint stock companies) [6,p:6-39] [15,p:21-24] [16,p:177-195]

The sports activities contribute to improving the urban environment performance by reducing the visual and environmental pollution, rehabilitating buildings which are nearby, the river and the development of transportation systems as follows:-

- A. Reduce visual pollution of river spaces and create correlation with urban context through sports activities which associated and harmonic, with a history of the city.
- B. Reduce the current chemical pollution and improve the environment by increasing green areas (landscaping).
- C. Re-use and rehabilitating of existing buildings and open spaces.
- D. Create a new sports recreational area [18,p:195].

### 3. Methodology

to achieve the research goals the researchers adopted descriptive analytical curriculum contain tow axis (theoretical axis and the application axis) as a follows:-

#### 3.1. Theoretical axis(Literature Review)

To establish a database based on them the main axes of research and investigation of scientific literature which dealt with the research subject (directly or indirectly), and related with beach sports and sustainable criteria of river beach spaces in the city ,as well as, determining procedural definitions, solving the research problem, and defining goals.

#### 3.2. The application axis

Contains the following stages:-

##### 3.2.1. Suggested beach sports activities

According to the literature review and history of the city, the researchers elected and suggest the following activities as proposals for beach sports as follow:-

- a) Swimming and games associated such as (beach volleyball, beach basketball, beach football, and Canoeing ).
- b) The marathons and games associated such as (Walkways and Bicycle race, Carts pulled by horses).
- c) Riding.

##### 3.2.2. Participants and Case study

The researchers identified case study by conducting a survey testing through the Internet and election A random sample (820 samples) of AL- Hilla society, which represents all the community type such as (Careers, age, and sex). the questionnaire was prepared consist (4th group) based on literature review and using a Likert scale ( three degrees yes, no, and maybe or I don't know or some time ), then alpha coefficient(Cronbach's Alpha) for the present study Has been tested and equal(0.943).

The questionnaire including (4th) group:-

1. General information group:- includes questions about (Careers, Age, and Sex, Level of science).
2. Social dimension group:- includes questions about local society desires of beach sports activities in city's river spaces, which included (9) historical beach sports activities with.
3. Economic dimension group:- includes(7) questions about investments and funding from the private, public and self-sector, unemployment and job opportunities desired by citizens which related with proposed of the sports field.
4. Environmental dimension group:- includes (15) questions about the reality of sports activates in the city which contains visual and chemical pollution, and the environmental conditions in the areas where sports activities were established and related to urban development in the city through the identification of (waste volume, cleanliness, road network, quality of neighboring buildings, aesthetic level, urban land prices and Rentals).

##### 3.2.3. proposed of calculating the sustainability criteria

according to the previous literature which related to the economic, social and environmental sustainability dimensions [3,p:2] [19,p:3], the Sustainable criterion Calculated as follow:-

- 1.Sustainable criterion =( Economic dimension indicators)+ (Social dimension indicators)+ (Environment dimension indicators).
2. The default weight of total sustainable criterion was given a (100%) to calculation and comparison the research results.
- 3.The default weight of social dimension equal ( 34%.) this dimension includes (9) indicators ) and (3.78%)for each indicator.

4. The default weight of economic dimension equal (33%), this dimension includes (7 indicators and (4.714%) for each indicator.

5. The default weight of environment dimension equal (33%), this dimension includes (15 indicators) and (2.2%) for each indicator.

#### **4. The results**

The results of the questionnaire of people distributed to most of the city's Neighborhoods were as follows:-

##### *4.1. Results of the first group about the general information*

AL-Hilla society were Interaction with the beach sports proposal from the researcher in river coast in the city and the results as indicated in the Table 4. Percentage of participants (20% female) and (80% males), in the same time, the rate of (47%) male youth ages (18-29) years were the most active age groups. amount of participants who graduates of university education (56.4%) and postgraduate studies (29.3%), whereas, amount of participants who graduates of, Primary, Secondary and Intermediate (13.6%). The proportion of participants of the unemployed is (14.4%) and (19.5%) for free workers.

##### *4.2. Results of sustainability criteria Dimensions*

Include the following:-

###### *4.2.1. Results of the second group (Social dimension group)*

The results of the questionnaire about this group as follows:-

1. The society accepting Beach Sports from recorded the highest percentage (28.3%) for beach football Sports, (14.7%) for swimming, (14.5%) for bicycle race, (12.5%) for beach volleyball, then Walkways and Canoeing, whereas the low percentage of community acceptance of Carts pulled by horses, Riding, and beach basketball, also the results of the questionnaire found that (84.6%) of the participants practiced different types of sports as habits with the high health criterion as shown in Table 5.
2. Only (10%) of the society is satisfied adequacy of the existing coastal activities in the city in exchange, on the other hand (89%) the majority of them are not convinced. also the practice of sport has strengthened their relationship with the family and supports communication with friends as shown in Table 6.
3. (20%) of society participate in social clubs, (50%) a café frequented (20.1%), smokers (18%) and drink alcohol (2.9%), finally (33.3%) from Of them believed that sports were caused by not going to cafes, smoking and drinking alcohol as shown in Table 6.

###### *4.2.2. Results of the Third group (economical dimension group)*

The results of the questionnaire about this group as follows:-

1. (76%) of the sample are ready to work in the commercial, cultural and entertainment fields which associated with the beach sports establishment, (21.5%) are willing to invest their Private money in sports sector, in another hand the majority of them wanting to be established by specialized companies and government support, also (90.5%) of the society believes that the establishment of coastal sports projects achieve jobs, attract tourists and revive the national economy, As in Table 7.
2. (69.6%) Of respondents support that the State contributed to the establishment of sports activates in the city, (57.5%) was self-participation of athletes, and (88.4%) of them support that specialized investment companies give implement beach sports Projects in the city as shown in Table 7.
3. (92%) Of respondents think that the establishment of beach sports in the Hilla River will contribute to attracting tourism.

#### 4.2.3. Results of the fourth group (Environmental dimension)

The results of the questionnaire about this group as follows:-

1. The questionnaire results indicate that (18.9%) of beach activities on AL- Hilla river are Playgrounds and squares, furthermore (11%) are social centers.
2. (89.1%) Of participants confirmed that Sports activities are not enough in AL\_ Hilla, (17.4%) of these events are squares and playgrounds, and ( 25.7% ) of them are serviced by transportation, also (10.4%) of those roads were established after the sporting events existing.in the same way, only (7.9%) the new buildings Allocated for sports service and( 75.3%) are converted buildings for sports use. as shown in Table 8.
3. (92.1%) of the society believe that the establishment of sports activities will positively affect the aesthetics of the city, through the exploitation of urban land by sporting events, clean up the rivers , beach plantations , compatibility with the city's heritage and historic ,Creating a healthy environment , create new architectural attractions , Providing entertainment venues , turn public ownership to private ownership, development of the surrounding physical environment and associated sports events of Recreational and commercial activities which will cause to the Urban development all the city furthermore , river coast .
4. The results of the participants answers that the establishment of sports activities in the city contributed to increasing of urban land prices by( 29.5%), raising the prices rents by (24%), As well as, raising prices of nearby residential units by (26.2%), and nearby residential complexes were established by (34.1%), furthermore commercial and cultural activities are available related to sports activities as shown in Tble 8.
5. (75.2%) of the participants confirmed the areas which dedicated to sports activities suffer from the waste. as well as, (18.4%) of them say Spread of the diseases in their neighborhoods, and (17.1%) of them confirmed they suffering from the diseases as shown in Table 7.

#### 4.3. Results of the relationship among all groups

The results of the questionnaire Analysis by using (Independent sample T-Test) and identify Pearson correlation( $r$ ) factors and significant at the 0.05 level(sig) for Independent factors (Age, Careers, educational attainment) and depending factors(sustainable criterion achievement) as shown in Tables 10 and 11.

Discuss the findings of the practical study by comparing the results of sustainable dimension criteria accruing from beach Sports activities today and their relationship with the (1st group) factors. The results indicate there is a correlation negative relation ( $-0.378$ ) is significant at the (0.05) level between achieving sustainable criteria and sample age, also there is strong negative correlation ( $-0.538$ ) is significant at the (0.01) level between achieving environmental criterion and sample age , whereas the weak correlation and is not significant at the ( 0.05) among other factors .in another site, there is strong positive correlation ( $0.640$  ) is significant at the (0.01 ) level between achieving Social criterion and sustainable criterion and supporting alternative hypothesis.

### 5. Conclusions

- 1- according to the results of the (1st) group, is shown that there is no relationship among sustainable criterion achieving, Careers, and Educational Achievement, whereas it was associated negative relationship with age, in another word, whenever age increased the community conviction decreased to achieve sustainable criterion.
- 2- according to the results of the (1st & 2nd) groups showed as follows:-
  - A. sports activities in general and the beach sport especially attracted the majority of young people and both sexes, despite their different regions, origins, and cultures.
  - B. The society practices sport As a habit ,therefore the health index has risen in their psychologically and physically.

C. The society conscious and they have convinced of the ability of these sporting Activities to create social communication at the family and community level. Also, improve the desired social habits of the whole of the Society.

D. the society has tendencies toward activities which have been associated with experimental philosophy rather than rational idealism, so this the implementation of these activities in harmony with the community, which ensures the success of urban development later and the establishment of beach sports support all kinds of society.

3- according to the results of the (3<sup>rd</sup>) group showed as follows:-

A. The great convictions, preparations, and wishes of the society to work and support of these proposed activities.

B. these activities can be invested and financed by the private sector and society participation

C. This is an indicator imposes On the urban designer determine the commercial use land In the region nearby Sports activities

D. The achievement of a sustainable criterion is highly associated with the economic factor.

4- according to the results of the (4<sup>th</sup>) group showed as follows:-

A. Sports activities will contribute to raising beauty levels and urban development in the city by improving the environment visually, reducing pollutants, raising real estate and urban land prices, and contribute to the revival of housing, Trade, transportation, and others sector.

B. The achievement of the sustainable criteria which a result of activating sports activities cause affect directly to achievement environmental criterion and urban development higher than its impact on social and economic criteria, where it is strongly related with environmental and urban development indicators

5- As a results of all the groups which showed and support the (main hypothesis) , despite the lack of establishment beach sport activates in the city today, but it achieve (57.3%)of the overall sustainability criteria, as well as , achieved the social criteria by(21.7% ) , economic criteria by (25%) ,And(10.59%) to support the environmental criteria ,also it contributed to historic centers development in another word ,beach sports activities establishment will be supported the sustainable criteria

6- The **reason** for the low achievement of the current sustainable criteria is physical and environmental degradation

## 6. Recommendations

1- To Spread Consciousness of the importance of the relationship between sports activities in general and beach sports in particular with the city history and investment in urban development. the establishment of peach sport in the area specified in master plan of the city (**Plan No. (1)** ),as well as , support the historical and philosophical development of the city , and the receiver repercussions during his daily movement within urban environment, through walking or cycling or canoe, also to achieve pleasure sensual of receiver by adding a (new act) changeable and developed within the river spaces and its implications of the urban development of the city.

2- Set strategies by planners, Athletes, architects and the disciplines related to the development of programs to guide the groups wishing to invest their funds in the sports field, benefit Provide job opportunities, raising the criteria of living for other social groups and supporting the tourism in the city.

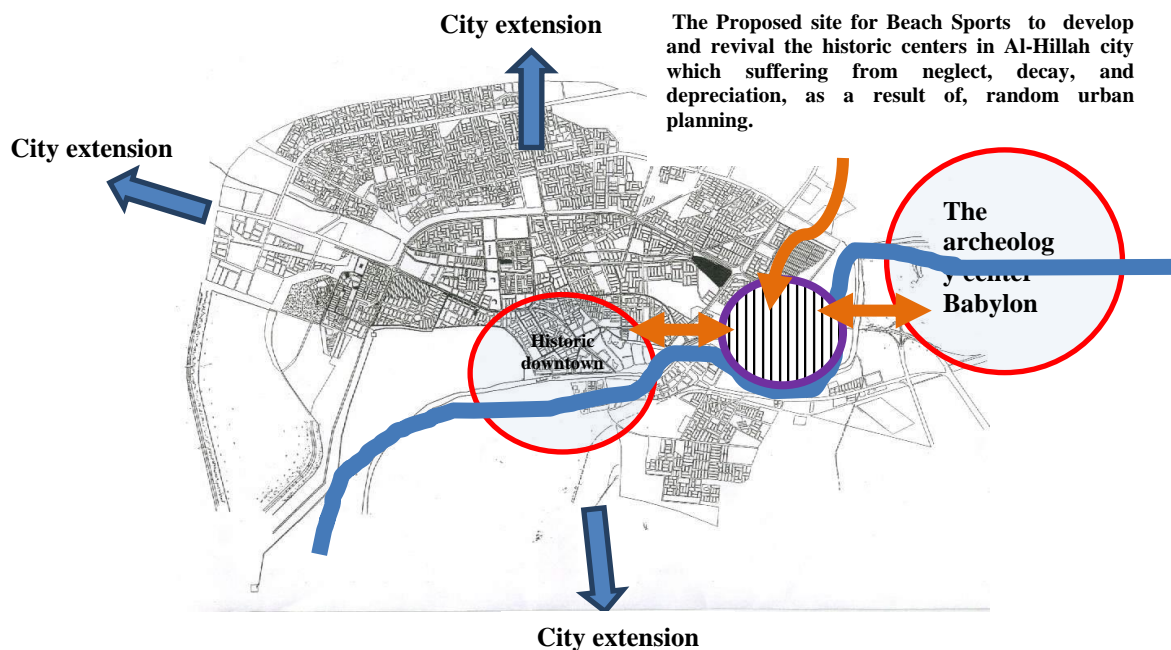


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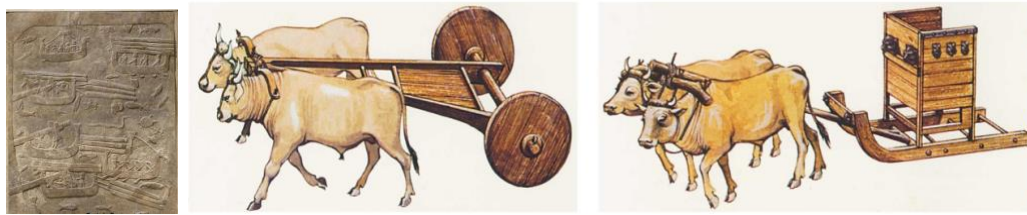


**Figure 1.** AL- Hilla city plan explaining the two historic centers and the proposed location to establish beach sports for development the city



**Figure 2.** The reality of the site which proposed to establish beach sports activities





**Figure 3.** Models of the Games in Mesopotamia are practiced on coast rivers, according to sources excavations

**Table 1.** General information group ( questions about Careers, Age, and Sex, Level of science)

The Careers of participating		Educational achievement of participating		the Age of participating		The sex of participating
Unemployed	14.4%	Unlettered	0.7%	12-17	3%	Males 80% Female 20%
free work	19.5%	Primary school	4.3%	18-29	47%	
government employee	39.8%	Intermediate school	1.4%	30-45	26%	
academic	26.3%	Secondary school	7.9%	46-65	21%	
		University \ Institute	56.4%	More than 65	3%	
		high education	29.3%			

**Table 2.** community acceptance of beach sports which Proposed by the researchers

practiced sports by community	%	community acceptance of beach sports which Proposed by the researchers
84.6%	0.60%	Carts pulled by horses
	4.40%	Riding
	14.70%	Swimming
	14.50%	Bicycle race
	10.60%	Walkways
	7.60%	Canoeing
	28.30%	beach football
	3.20%	beach basketball
	12.50%	beach volleyball

**Table 3.** Results of the second group (Social dimension group)

questionnaire results						Indicators criterion (Questionnaire about the indicators)	sustainability criteria (Dimensions) General indicators(
The index weight of 3.78 %	Maybe	The index weight of 3.78 %	No	The index weight of 3.78 %	yes		
0.185	%5	0.265	7%	3.33	88%	1. Do you want to Play sports to increase social communication with friends	<b>Social axis</b> Which included questions about the wishes of the society about Proposed activities, which included (9) beach sports activities have historical roots in the city civilization of and how the community
1.08	28%	1	27%	1.7	45%	2. Do sports which Practiced an influence on strengthening the relationship with your family members?	
0.087	2.2%	3.22	85.3 %	0.473	12.5 %	3. Do you suffer from diseases?	

0.042	1%	3.36	89%	0.378	10%	4. Are the beach sports activities in Hilla enough to satisfy your desires?	<p>interaction with them</p> <ul style="list-style-type: none"> <li>• 84.6% Of the community practicing sports.</li> <li>• Indicator ratio of sustainable criterion is 34%</li> <li>• Weight for each indicator is 3.78%</li> <li>• <b>alpha coefficient Cronbach's Alpha (.927)</b>. If we ignore Question 1, Alpha value will be <b>(.948)</b></li> </ul>
0	0	3.74	98.9%	0.044	1.1%	5. Have you ever been charged with a crime?	
0.083	2.20%	2.941	77.8%	0.756	20%	6. Do you subscribe to social clubs?	
1.088	28.8%	1.932	51.1%	0.76	20.1%	7. Do you usually go to cafes?	
0.216	5.7%	2.884	76.3%	0.68	18%	8. Are you a smoker?	
0.052	0.7	3.644	96.4%	0.084	2.9%	9. Do you drink alcohol?	
0.676	17.9%	1.845	48.8%	1.259	33.3%	10. was a Playing sports cause to keep you away from cafes, smoking, and alcohol?	
				21.7%			

Table 4. Results of the Third group (economical dimension group)

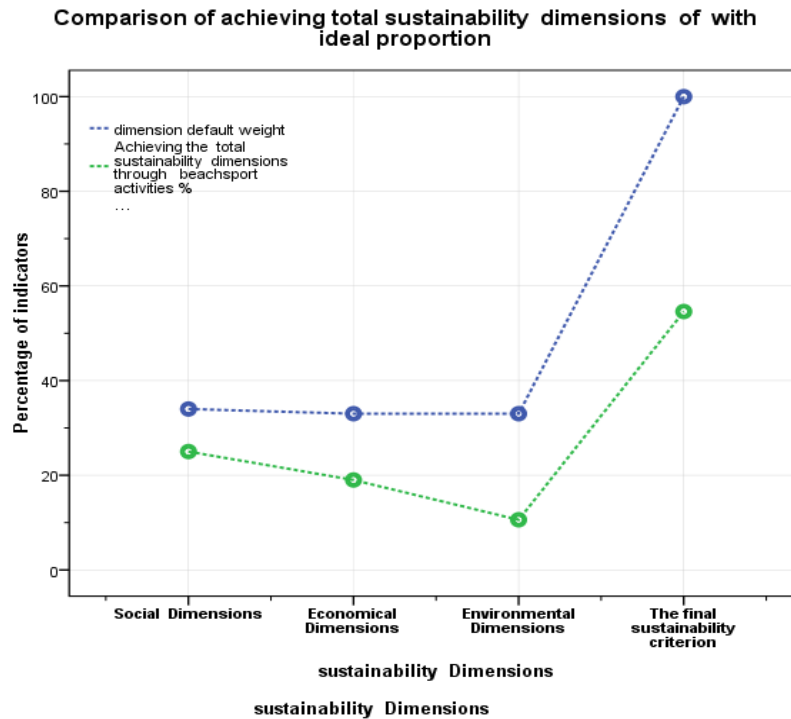
questionnaire results						Indicators criterion (Questionnaire about the indicators)	sustainability criteria Dimensions) General indicators(
The index weight of 4.714	May be	The index weight of 4.714	No	The index weight of 4.714	yes		
0.377	8%	0.754	16%	3.583	76%	1- Do you wish to work in the economy on it if Set up the Beach activities on AL- Hilla river?	<p><b>economical axis</b> Include questions about investments and finance From the private, public and self-sectors, as well as Unemployment and desirable job opportunities for citizens which related to the sports sector.</p> <ul style="list-style-type: none"> <li>• Indicator ratio of sustainable criterion is equal 33%</li> <li>• includes (7 indicators and (4.714%) for each indicator.</li> <li>• <b>alpha coefficient Cronbach's Alpha(.879)</b> If we ignore Question 2, Alpha value will be <b>(.946)</b></li> </ul>
2.165	45.9%	1.536	32.6%	1.013	21.5%	2- Are you willing to invest your own money in the proposed beach sport?	
0.066	1.4%	0.481	10.2%	4.167	88.4%	3- Do you support to give implement beach sports Projects to specialized investment companies?	
0.476	14.1%	0.943	20%	3.295	69.9%	4- Do you support to implement beach sports Projects by the States and investment of national funds?	
0.311	6.6%	0.033	0.7%	4.37	92.7%	5- Do you support the establishment beach sports activities in the city of AL- Hilla city?	
0.415	8.8%	0.033	0.7%	4.266	90.5%	6- Do you think that the establishment of beach sports in the Hilla River will contribute to creating new jobs for the citizens?	
0.344	7.3%	0.033	0.7%	4.337	92%	7- Do you think that the establishment of beach sports in the Hilla River will contribute to attract tourism within the city and revive the economy?	
<b>25%</b>							



**Table 5.** Results of the fourth group (Environmental dimension)

questionnaire results						Indicators criterion (Questionnaire about the indicators)	sustainability criteria Dimensions )General indicators(
The index weight of 2.2%	Maybe	The index weight of 2.2%	No	The index weight of 2.2%	yes		
0.128	5.8%	1.96	89.1 %	0.112	5.1%	1- Are sports services in the city sufficient in your residential neighborhood where you live?	<p><b>Environmental axis</b> It included questions about the physical and environmental chemical pollution in the areas where sports activities were established and their relation with urban development in the city through the identification of ((the waste, Hygiene road network availability, the adjacent buildings quality, aesthetic level, urban land prices, and rents)</p> <ul style="list-style-type: none"> <li>• Indicator ratio of sustainable criterion is equal 33%</li> <li>• includes (15 indicators and (2.2%)for each indicator.</li> <li>• <b>alpha coefficient Cronbach's Alpha(0.897)</b> If we ignore Question 14, Alpha value will be <b>(.911)</b></li> </ul>
0.536	24.7%	1.49	67.7 %	0.174	7.9%	2- Are buildings used are new And customized For sports activities?	
0.174	7.9%	0	0	2.026	92.1 %	3- Do you think the establishment of beach sports Playgrounds and squares on both sides of the river improves the beauty of the city?	
0.777	35.3%	0.858	39%	0.565	25.7 %	4- Do Suitable road network available to reach existing activities In or near your neighborhood?	
1.337	60.8%	0.634	28.8 %	0.229	10.4 %	5- Was the road network established after or before the event?	
0.88	40%	1.1	50%	0.22	10%	6- Has sports services been provided by a state decision?	
0.726	33%	0.407	18.5 %	1.067	48.5 %	7- Have sports services been provided by self-help (Volunteer athletes)?	
0.848	38.5%	0.49	22.3 %	0.862	39.2 %	8- Has sports services been provided by citizens (contractors or City elders)	
1.241	56.5%	0.31	14%	0.649	29.5 %	9- Are increased the prices of adjacent Urban land to the sporting events in your neighborhood after the establishment of sports services?	
1.331	60.5%	0.341	15.5 %	0.528	24%	10- Are increased the rentals prices of adjacent Urban land to the sporting events in your neighborhood after the establishment of sports services?	
1.257	57.1%	0.367	16.7 %	0.576	26.2 %	11- Are increased the housing prices of adjacent Urban land to the sporting events in your neighborhood after the establishment of sports services?	
0.698	31.6%	1.08	49.2 %	0.422	19.2 %	12- Are there commercial or cultural or entertainment centers available related to these sporting events in your neighborhood?	
0.594	27%	0.856	38.9 %	0.75	34.1 %	13- is there a residential complex nearby or surrounding sports activities?	
0.374	17%	.172	7.8%	1.654	75.2 %	14- Is the area which Specific sports activities in Your neighborhood suffer from waste?	

0.902	41%	0.922	41.9 %	0.376	17.1 %	15- Are there diseases spread in your neighborhood?	
							<b>10.59%</b>



**Figure 4.** Comparison of Achieved sustainability dimensions ratios by default ratios according to the questionnaire and citizen opinion

**Table 6.** Correlations and Independent Samples Test among independent and depending factors

Independent factors	Correlations	depending factors			
		Social criterion achievement	# economical criterion achievement	Environmental criterion achievement	sustainable criterion achievement
Age	Pearson Correlation	-.273-	.118	<b>-.538-**</b>	<b>-.378-*</b>
	Sig. (2-tailed)	.070	0.659	<b>.000</b>	<b>.010</b>
	Independent Samples Test (t)	-.177-	#	<b>-2.653-</b>	<b>-2.240-</b>
Careers	Pearson Correlation	-.142-	-.114-	-.161-	-.209-
	Sig. (2-tailed)	.353	.890	.290	.168
	Independent Samples Test (t)	-.260-	#	-.268-	-1.516-
educational attainment	Pearson Correlation	-.079-	.078	-.021-	-.008-
	Sig. (2-tailed)	.608	.369	.889	.956
	Independent Samples Test (t)	-.445-	#	1.090	-.614-

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

# The factor values are not nonnormality distribution
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**Table 7.** Correlations among independent and depending factors

depending factors		Independent factors		
		Social criterion achievement	economical criterion achievement #	Environmental criterion achievement
sustainable criterion achievement	Pearson Correlation	<b>.640**</b>	.584	.766
	Sig. (1-tailed)	<b>.000</b>	.472	0.438
	Independent Samples Test (t)	<b>5.181</b> <b>5.726</b>	#	4.654 4.814
# The factor values are not nonnormality distribution				
**. Correlation is significant at the 0.01 level (2-tailed).				

**Acknowledgments**

We thank AL-Hilla society for their support and answer the questionnaire Which are prepared for research purposes , so the materials has been collected during a research period in Iraq- Babylon Province- AL-Hilla city and elected (820) random samples From AL-Hilla society representing all Communities such as (Careers , age , , And sex) which representing almost (0.15% ) of the original society in AL-Hilla city ,in another hand, this research has been the base to achieve knowledge in Sustainability and well-being of the society.