

The Importance of the Environmental Awareness in Obtaining Sustainable Development Study Area (Hilla City)

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Abstract: *Iraq has suffered from serious environmental issues in the last twenty five years. The aftermath of the environmental issues made a huge impact upon the development and it's factors which made it necessary for the appearance of the idea of the sustainable development in order to preserve the factors of the environment from depletion and in a balanced way. The United Nations commenced through it's specialized organizations a significant concern about the environment and the sustainable development subject through widespread dissemination of the environmental awareness in addition to the role of the educational organizations, the civil organizations and the media to promote the environmental awareness. A sample from the study area was chosen consisting of 150 forms which were distributed to different residential quarters and the result of the referendum showed that according to the field of study (Hilla city) there was concerns towards the environmental awareness in a great scale as a result of the importance which was prioritized by the mass media and other establishments towards the environmental awareness and the creation decent environmental awareness in order to preserve the elements of the environment in a way that secures sustainable development achievement in the study area.*

Keywords: Environment, sustainable, Hilla city, awareness, development.

1. Introduction

The environmental awareness is a very important factor in the lives of societies whether the advanced or the developing ones, though the need for such awareness in the developing societies tends to be stronger as the relation is significant between the environmental awareness and the comprehensive development which the developing societies strive to achieve. And since Iraq is a developing country, that has endured exceptional conditions due to the wars it's environment witnessed throughout the last twenty five years in addition to the exhaustion of the natural resources and the contamination effects on the environment which made it crucial to have high environmental awareness level in order to put an end to the residues of the environmental issues on one hand, and the environment preservation throughout sustainable development towards it's natural resources on the other hand. Especially now that we are the threshold of a comprehensive developing stage to overcome the past and to plan for the future in a way that won't exhaust the natural resources.

2. Research Issue

The environmental awareness depression negatively affects the environment sustainability and subsequently affects elements development.

3. The Aim of the Research

Study the relationship to achieve between the most of the environmental awareness and its effect to achieve the sustainability development which's concern to take care of the resources and natural and human environment and according to that we have to find whose responsible for achieving the environmental awareness in the society.

4. Environmental Awareness

The intended by environmental awareness is to perception the individual to help the social groups and the personnel on gaining environmental awareness and its problems

4.1 The environment and the Development:

All the environmental issues are closely linked with each other with policies and development practices. The environmental awareness is no longer a comfort issue and proverbial life condition, but an important living issue for the human life in general follows by economic and social and Education for the inhabitance. This matter is not something new for the humans, because preserving the environment was the main priority concern to the humans since the beginning of human race, but the new phenomenal trend is to gain on the environment labeled issues where it actually existed such as the sustainable management of the environment, Biological diversity, Desertification, Disposal of chemical waste, Solid waste recycling, Global warming, Renewable energy reserve.

4.2 International conditions that led to the emergence to idea of sustainable development

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waste recycling , Global warming , Renewable energy reserve.

4.3 The definition of sustainable development:

4.3.1 The definition of the Global sustainable development in the year 1987:

Meet the needs of the presence without causing annihilation for the ability of the new generations to meet their special needs

4.3.2 The definition of United Nation to the environment and the development in Rio de Janeiro in the year 1992:

Controlling the economic resources in a way to preserve the resources and the environmental or to improve it so the new generations will be able to live in even better environment.

The sustainable development counts from the scientific side in numerous directions and can be viewed from different perspectives, but it is often limited according to the certain period of time (whether in years or contracts or centuries or thousands of years) and proportion and function and the consist of the structural of Ecosystem that must preserved.(**Douglas Moss ,2000. P. 63).**

These definitions can be summarized in the following definition:

(The available Directors Governance for the natural resources ensures the economic and social prosperities and to achieve the developmental and environmental needs for the current and future generations.

5. Special Questionnaire Results Analysis the effect of the Measurement of the Environmental Awareness in Obtaining the Sustainable Development in Study Area (Hillah City)

Hillah city is the administrative center of the province Babil and 100 km away from the city of Baghdad and 45km away from the city of holy Karbala and 65km away from the city of AL Najaf AL Ashraf and 85km away from the city of AL Diwaniya and 200km away from AL Anbar and the city of Hillah is linked with these cities by new lines of communications routes. The city is located on both sides of Hillah river which is one of the lines of the river Euphrates in position intersects which has a degrees East longitude of 44,26 with a degrees North latitude of 32,29 (AL Khateeb1974). The tangle of communications is important that linking the Capital Baghdad with the cities of central and southern. The population reached up to (394992) in 2010 and with an average of (22%) of the province residents, were questionnaire form being distributed in the study area in appropriate way according to the number of inhabitation within the city. Were the form includes number of axes and within it general question axis and basics information axis (perusing) and Television viewing axis and follow up Radio and sustainable environmental practices axis and environmental awareness axis. There has been a certain selection in the study area

with (150) applications were it has been distributed in different neighborhoods of the study area.

5.1 Basic information's axis (perusing)

This axis aims to study the level of the singular samples interaction of the research (the responders) with the general expertise resources that concerning in the practicing of the perusing. The paragraph included within the following directed question (Do you practice the perusing of expertise resources?) the answer was yes at least from those whom were practicing the perusing from the responders about 55% as for those whom didn't practice the perusing from the responders were about 45%.

Table 1: Responders results around the selection of the expertise resources priorities (The perusing)

	yes	no	Yes%	No%
Iraqi newspapers	95	55	63	37
Magazines	86	64	57	43
Scientific books	69	81	46	54
Other	50	100	33	67

From what is represented appear that the first resource that represent the newspapers constitutes the important conative resource among the varied of perusing resources follows by the second resource (Magazines) and at last the third resource registered that represents scientifically books on minimum level with comparison with the two previous resources

5.2 Television viewing and follow up Radio axis:

This axis includes the orientation of the following questions:

- Which television channels you prefer to watch?
- What television program you prefer to watch?
- Which Radio channels you often listen to?

The Table (2) shows the results of the responders in television channels viewing and in the highlights of what has been represented, appear to us that the direction of the responders about choosing satellite channels higher than the two satellite channels and ground channels and it is on the responders level were they only prefers to watch the ground channel. Also that the tendency of the listeners about the Iraqis Radio channels recorded a high trend by the responders in comparison with what has been achieved about the tendency of other Arabic and foreign Radio channels.

Table 2: The results of the responders about television viewing and follow up Radio and morale tests

Paragraph		Answer		
		1	2	3
Channels of television avorite	Level	Satellite	Earth	two
	Number	80	5	65
	Percent%	53	3	44
Any satellite channels prefer	Level	Iraqi	Arabic	Foreign
	Number	74	63	13
	Percent%	49	42	9
any radio hannels Listen	Level	Iraqi	Arabic	Foreign
	Number	127	20	3
	Percent%	85	13	2

5.3 Sustainable environmental practices axis:

This axis carries out some of the practices that reflects the level of the province on the resources and the abilities of the natural and the human environment specifically on soil (land) and the water (river of Hilla) within the highlights of the following paragraphs:

- 1) Inquire about the position of private car washing, if the total of the concerned in this paragraph reaches (70) responsive.
- 2) Inquire about the position of the disposal of greases and oils and other leftover liquid that's not useful or after it has been consumed, if that include the entire responders.
- 3) Inquire about the position of household waste before disposing it or been carried out of the house, if that includes the entire responders.
- 4) Inquire about how to get rid of household waste and that included the entire responders too.

The Table (3) includes the results of the responders.

Table 3: Responders results about the practices that are related to sustainable environment

Practices		Answer		
		1	2	3
Site clean car	Level	Garage	Home	Street
	Number	40	25	5
Site throw fat, oil and other fluids after consumption	Level	With waste	Public spaces	Other
	Number	5	93	52●●
Site lay waste before throwing them out of the house	Level	Bags	Container	Plastic boxes
	Number	96	44	10
Ways to get rid of household waste	Level	Vehicle cleaning	Special container	Public square
	Number	115	20	15

●●Others include the (slot sewers, public sewers, rivers, streams.

During the rehearsal of the previous schedule results, it shows the calibration level of the sustainable environment in the highlights of the studied indicators where it achieved an acceptable relative positive level. Besides the second practice that shaped a low level in the negative practice tendency of the sustainable environment. Especially with the respond level (other) which included on throwing the disposal of greases and oil and other liquids after it has been used in sewers openings and public sewers or in the nearest rivers sewers.

5.4 Environmental Awareness Axis

This axis includes the importance of cognitive information that reflects the level or the effectiveness of the sustainable environmental achieves and comes up in the highlights of the following paragraphs:

- 1) Environmental awareness locations, it's as follows:
 - Private awareness locations, such as places of worshiping God and local and global associations and organizations.
 - Public awareness locations, such as Schools and Institutes and Colleges and youth centers.
- 2) The effects of war in the sustainable environment that has negative reflecting on the humans and the represented environment of soil (ground) and the represented water resources by rivers and rivulets.
- 3) Systems and rules that concerns sustainable environmental preservation, as well what concerns the executive branch that is responsible for sustainable environmental preservation.
- 4) Environmental cognitive in the role that played by human from misusing aspects of the available resources from one side, to the leader role that can be practiced in reconstruction and maintenance the sustainable environment. The table.(4) includes the results of the responders around this paragraph.

Table 4: Results respondents about environmental awareness

Sources of environmental awareness	Sequence	Paragraphs	Repetition and observation			Relative Importance		
			Yes	To some extent	no	%		
Centers special awareness	1	Do you think that the mayor or city council have a role in environmental awareness	80	52	18	53	35	12
	2	Do you think that houses of worship have an influential role in environmental awareness	74	57	19	49	38	13
	3	Do you think that there should be local or global organizations contribute to the preservation of the environment	96	37	17	64	25	11
	4	Do you think that there is a role for the media in the interest in protecting the environment	88	54	8	59	36	8
Centers public awareness	5	Do you think that the role of the school in the direction of the student environmental awareness	70	64	16	47	43	10
	6	Did you know that the curriculum includes threads specific to environmental awareness	85	51	14	57	34	9
	7	Do you think it is necessary to add curricula specific to environmental awareness	98	46	6	65	31	4
Wars	8	Do you think that the recent war a negative impact on the environment in your area	138	9	3	92	6	2
	9	Do you think that the effects of the war large	107	41	2	71	27	2
	10	Do you think that the last war a negative impact on the different water sources in the country	134	12	4	89	8	3
Law	11	Do you think that the laws of planning an active role in preserving the	120	27	3	80	18	2

		environment						
	12	Do you think the presence of environmental police to preserve the environment	102	43	5	68	29	3
Human and Environment	13	Do you think the need to exploit natural resources	139	11	—	93	7	—
	14	Does the man in the effective role of the bad environment						
	14-1	Depletion of natural resources	78	64	8	52	43	5
	14-2	Failure to protect wild animals	89	47	14	60	31	9
	14-3	The establishment of cities in non right places,	132	14	4	88	9	3
	14-4	The destruction of beautiful areas	97	43	10	65	28	7
	14-5	Non-use of modern technology	105	35	10	70	23	7
	14-6	Failure to maintain the natural areas	89	54	7	59	36	5
	14-7	Contributing to increased desertification	107	32	11	72	21	7
	14-8	Extinction of certain types of animals	96	34	20	64	23	13
	15	The role of man in the preservation of the environment						
	15-1	Contribute to improving the environment	122	20	8	82	13	5
	15-2	Using some of the techniques to serve the environment	93	37	20	62	25	13
	15-5	Use of certain pesticides are good for pest control	1131	17	2	88	11	1
	15-6	Maintaining the tourist areas	115	31	4	77	21	2
	15-9	Cooperation in solving environmental problems	133	13	4	89	8	3
	15-10	Estimate the state's efforts to preserve the environment	107	33	10	71	22	7
	15-11	Appreciation of the role of science and technology in the service of the environment	128	18	4	86	12	2
	15-12	Contribute to the preservation of the green areas	126	21	3	84	14	2

During the reviews of the statically defined results of table (4) and specifically the relative importance shows and with no doubt of achievement of high level from environmental awareness for individuals research samples generally and in the highlights of the paragraphs that included this axis all the paragraphs of private awareness centers had the highest percentage which was 64%. (do you think that is necessary that should exist local and global associations that contributes in environmental preservation).

As for the public awareness centers paragraph the high important of the paragraph is that concerns the necessary of the additive of school curricula specialized in environmental awareness and by 65%. As for what concerns impact of wars the answer was the influences of lately war effects on the area and by 92% and as for what concerns the role of the rules in environmental preservation the percentage was 80% with the necessary of the existing of planned rules to preserve the environment. As for the concerns of human negative role in the environment, the answer was the exists of human negative role in the field of the establishment of cities in another places that they should be and by 88% and what follows after that the human contribution in increasing the phenomenon of desertification and by 72% and third not to use the modern technology and by 70%. As for the paragraph of human role in preserve and maintenance the environment the human role was in preserving public and private properties and by 93% and the cooperation with others in solving environmental issues and by 89% and third the use of pesticides at reasonable rates and by 88%.

In order to point the varied mass media priorities in the discussion of protecting the environment and environmental preservation specially in the study area in accordance with the most importance of responders' point of view, that includes (**Broadcasting, Television, The press and Advertising poster and Public seminars and at last the Photosynthesis announcement**). It has been

directed to inquire the responders who are answered positively by giving an opportunity to know if they had the priority of those facilities from the importance side. The results are as it shows in table. (5).

Table 5: The relative importance of measuring the priority of the varied Media's test level from the responders' point of view

<i>Different Methods media</i>	<i>Relative Importance</i>	<i>. Ranking</i>
Radio	66.64	Second
TV	69.61	First
Newspapers	42.20	Third
Poster	28.21	Fourth
Public seminars	20.31	Fifth
Announcement photosynthesis	12.36	Sixth

From the schedule above shows that the television appliance made an important media resource from among the other varied media resources and what comes in rank number two in terms of importance (**Broadcasting**) with small margin from the first appliance and after that follows the third appliance which represents newspapers with clear difference from the relative importance that applied with the two previous appliances. And what comes in the fourth rank is Advertising poster and public seminars and in the fifth and last place that the photosynthesis announcement made the lowest level in the highlights of the relative importance of the other media facilities

5.5 Simple of Multiple Linear Regression Analysis:

Occasionally it can be reasonable in most of studies to evaluate a specific variable effect on preferable variable especially when it connects each other closely specifically known as (**Causes Correlationship**) and among one of the important modality of these is the relation (**Straight-Line**) that summarizes observed credential behavior of one of the variables on the other variable. Where it can be achieved in

accordance with one of the evaluating simple parametrized linear specimen methods with **(Ordinary Least Squares)** to achieve first class linear specimen that shows in the following formula:

$$Y=B_0 + B_1 X + \epsilon$$

Where B_0 , B_1 are parametrized specimen representing respectively fixed limit and tendency. The fixed limit indicates the achieved representable respond value in practicing level **(sustainable environment)** in spite of the level effect of the environmental awareness as an independent variable in the specimen formula above. The value of tendency effect indicates direction and quantity of the independent variable **(after the environmental awareness)** in the sustaining indicator of the sustainable environment **(the practices)**.

If there is a change in one unit in the dependable gradual measurement level in the environmental awareness variable **(cognitive)** it will affect **(trend)** variable unit of the

sustainable environment **(practices)** with assumption that the shape of the achieved relationship is unilateral, that is to say the effect measurement according to specimen Straight – line, but based on the basics of the effect evaluating measurement on every independent variable separately from the rest of the other independent variables and the schedule No.(6) includes the statically conclusion of the specimen evaluations of the straight – line in study of the measurement of the achieved effect level with every independent variable **(environmental awareness)** in variable relationship function **(sustainable environment)** cognitive in practices, and at last that's the limit (ϵ) represents randomly error values in specimen that calculating its value in accordance with the following formula

$$\epsilon = Y - Y^{\wedge}$$

Which means that Y^{\wedge} represents the evaluative values of the variable of the sustainable environment **(practices)** that is calculated in accordance with the specimen evaluative linear.

Table 6: Statically evaluations conclusion of the Straight – Line specimen between each variable from the variables (environmental awareness)- the cognitive of the expertise on the variable (sustainable environment) the cognitive (practices)

No	Variables environmental awareness	test statistic F	The level of significance	Simple correlation coefficient r	The coefficient of determination R ²	Estimate the constant term B ₀	Estimate the impact B ₁	Indication of the level of impact
1	Centers special awareness	6.7	0.0069	0.255*	0.069	1.436*	0.829*	0.008
2	Centers public awareness	1.2	0.266	0.122	0.012	1.538*	0.653	0.320
3	Wars	0.32	0.72	0.042	0.003	1.901*	0.810-	0.643
4	laws and regulations	3.3	0.021	0.21*	0.049	1.507*	0.621*	0.048
5	the human environment	2.8	0.090	0.17*	0.029	1.314*	0.515	0.088

*Estimates indicate the level of significance level adopted ($\alpha=0.05$)

Through results reviews the Table (6) shows out that excellence success results of specimen straight – line in the highlights of the calculated individual responses research sample datum in accordance with average measurement on paragraphs level indicator of the sustainable environment **(practices)** as dependable variable and average measurement on paragraphs level indicator of the environmental awareness **(cognitive)** as independent variable disaggregated to (5) variables which are on very high level in the variable of private awareness centers that occupied ranked the first in the resulting impact of the sustainable environment variable. Where test result indication significance effect estimation level to the existence of high significance morale at the moral level **(0.01 = a)** towards in accordance with events that too. Whereas recorded the standard measurement results excellence success specimen moral level at rules and regulations variable that occupied ranked second in the standard effect measurement the results of sustainable environment variable. Where test result indication significance effect estimation level to the existence of significance morale at the moral level **(0.05 = a)** towards in accordance with events that too. As well it was recorded results of human and environmental variable in the highlights of the standard significance excellence success test linear specimen a level of reasonable accommodation with its relationship with sustainable environment variable were value level draw near its significance from the independent significance value level **(0.05 = a)**.

Thereby that the indicator is among the indicators that has important effect in study and specification the standard of

the achieved response of the sustainable environment variable and towards in accordance with nailing that effect too. Finally that the specimen excellence success results has recorded less standard in the study of relationship between environmental awareness variables that representing public awareness and war impacts centers from the responders' point of view. As the values indication the standard of moral in quality test to higher their value clearly than the independent value of standard significance **(0.05 = a)** and in the highlights of it that effect results measurement caused by it in the specification standard answer in sustainable environment variable were they recorded the lowest level specially with war impacts variable with its relationship with sustainable environmental factors **(practices)**.

6. Strength and Weakness and Opportunities and Threats (SWOT analysis)

Weakness	Strengths
<ol style="list-style-type: none"> 1. Lack in training and qualifying courses. 2. Lack of environmental awareness and institutional and public. 3. Weakness in the mechanisms of coordination and joint work with the local administration and civil society organizations. 4. The absence of the role of civil society organizations in the field of citizen awareness 	<ol style="list-style-type: none"> 1. The existence of environmental information base on the city level. 2. Require the submission of environmental impact studies in the granting of environmental approvals for development projects. 3. Environmental awareness seminars for various segments of society in the city. 4. Conduct patrol surveillance of the various activities in the city. 5. The existence of proposals by those who dwell in the city on the development of municipal action with respect to preservation of the environment (personal interviews for the researcher).
Threats	Opportunities
<ol style="list-style-type: none"> 1. Lack of activation of legislation relating to the built environment. 2. Weak coordination in environmental between Partners environmental work. 3. Climatic environmental conditions for the city of Hilla, and the significant growth in population and increasing polluting activities need to make a great effort to educate large citizens. 	<ol style="list-style-type: none"> 1. Use of consultants from the University of Babylon to support environmental work. 2. There is Council on Environmental Cooperation at the county level and the city is guaranteed to hold periodic meetings. 3. There is an intention to include environmental issues in updating the main priorities of the plan of the city

7. Conclusions and Recommendations

7.1 Conclusions

- 1) The environmental awareness has a major role in preserving the environment and that this awareness comes through concerted government and private institutions with the community in order to promote environmental awareness among the community.
- 2) For sustainable development, it requires a high achieving environmentally conscious of the people through the media and related organizations.
- 3) The Iraqi environment has been exposed to a great destruction of many of its components appeared where environmental pollution is a result of the many wars that has gripped Iraq a problem and with unconventional weapons made from the center of the Iraqi environment the pollution and the exhaustion of its components.
- 4) The city of Hilla suffers from many environmental problems, leading to influence the human and health, as well as affect the sustainable development of the area of operation.
- 5) Show that the study area has a good environmental awareness and people are trying to develop the cognitive and media so as to ensure their abilities to maintain the sustainability of the environment and its components.

7.2 Recommendations

- 1) The reliance of environmental awareness in all media, well diversified investment programs and the most favored by respondents through interspersed with some advertisements directed towards raising the level of environmental awareness among citizens.
- 2) The additive of study materials for stages of study which includes the environment and environmental education and to maintain the sustainability of the environment in general and the Iraqi environment, in particular.

- 3) The attention of the media department at the Ministry of Environment in the field of environmental awareness to the Iraqis in general there is no advertisements affixed on the streets is limited to urban centers without city sides.
- 4) The need to enact new environmental legislation on the environmental situation in Iraq for the post-war in 2003, and in the light of such legislation there will be an environmental awareness.
- 5) Contact the experts, planners and faculty with a relationship to the environment to learn to identify the fundamental aspects and points due to educate people about them and graphically.

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