



ATTITUDE OF RURAL WOMEN TOWARDS SOME ENVIRONMENTAL ISSUES IN DUHOK GOVERNORATE, KURDISTAN REGION OF IRAQ

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ABSTRACT

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The main objective of this study is to identify the rural women's attitudes towards some environmental issues in Duhok Governorate, Kurdistan region of Iraq. Area random sampling was used to select the research sample which is (507) rural women. A questionnaire was designed to collect the research data, which is consisted of two parts, the independent variables and attitudes scale which is consisted of (54) items distributed on four domains (Rural tourism, Home waste management, Sustainable agriculture, and Sustainable methods of using and conservation of forest). Experts and content validity were used to achieve the validity of the attitudes scale, and Cronbach alpha formula was used to measure the reliability of it, its value was (0.945). The data was analyzed with SPSS program. The results showed that attitude of the respondents towards all the studied environmental domains is positive. The results also showed that there is significant correlation between the attitude of respondents and each of the following variables (Level of education, Satisfaction with services in the village, Agricultural information sources, and Cultural openness). While there is no significant correlation with: (Age, Material status, Current work, and Participation in family decision – making). The research included some conclusions and recommendations.

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INTRODUCTION

The term "attitude" has a long history in the social sciences, and social psychology's definition of it as "the scientific study of attitudes" provides one example of how widely it was used at the start of the 20th century (Herzog, 2017). Ecological issues have been dramatically worsening on all levels for decades. All countries have been preoccupied with them, and numerous local and international conferences have been convened (Ruzaiq, 2007).

Attitudes grow through the satisfaction of an individual's needs and interests; the things that satisfy the individual's mental, psychological and social needs, his positive attitudes grow towards them, and the things that satisfy the individual's needs may have a negative attitude towards them (Visser and Mirabile, 2004).

Pollution is one of the most significant environmental problems that people now confront. It sparked attention among specialists and the public on a global scale, and this topic was discussed at several symposiums and conferences. Rural women play an important role in the agricultural production process through their participation on

farms in agricultural production activities, and they may manage agricultural activities on their own and directly, whether agricultural or non-agricultural, in order to provide for the needs of the family or for economic purposes. Working with rural women requires the development of a specific strategy to work with them in order to bring about a qualitative leap in the life of the rural community in general and the rural family in particular (Al-Badri, 2007).

Any significant physical, chemical or biological change that has a negative impact on the air, water, land, human health, or the health of other living things is referred to as environmental pollution. Due to its effect on renewable resources, it also harms the production process (Al-Saied, 2002). Agriculture has long sought to boost profitability and output yields, and modern agricultural technology today makes this objective even easier to achieve. Without fully taking into account long-term effects on ecological systems and biodiversity, conventional farming methods were developed, which has resulted in a number of environmental and health-related problems (such as air pollution, greenhouse gas emissions, and pesticide contamination) (Fang, et al., 2018). Due to greater environmental consciousness and increasingly stringent environmental restrictions, there is an increasing demand for "greener" and environmentally friendly products. Sustainable agriculture is regarded as an important alternative agricultural system that has garnered significant attention in recent years throughout the world in order to assure profitability as well as food quality and safety. However, this has caused a contradiction for farmers between the need to maximize short-term profits and the long-term requirement to conserve the ecosystem that they depend on for a living (Rosin, 2008). Forests provide basic necessities, economic resources, and safety nets in times of disaster, which is why rural populations all over the world rely so largely on them for their livelihood (Shackleton and Shackleton, 2007). Although the research points to a number of potential contributing elements, attitudes, and knowledge are believed to be important in affecting conservation behaviors. Therefore, an essential first step in creating comprehensive and inclusive conservation policies is studying community attitudes and viewpoints (Badola, et al., 2012). Though various consistency theories differ in several respects, all of them have a common object that is reducing inconsistency and returning the individual to the equilibrium state (Olufemi, 2012). The researcher relied on this theory in the study, this theory may aid in the process of a person's classification and processing of information and experiences.

In the rural areas of Iraq generally and the Kurdistan region specifically, there is a dearth of human behavior study. Consequently, this study will be carried out to provide answers to the following questions: What attitude do rural women have toward some environmental issues in the targeted region such as (sustainable methods of using and conservation of forests, Sustainable Agriculture, Rural Tourism, and home waste management)?. What are the factors that affect rural women's attitudes in the studied dimensions?. Agricultural extension professionals and policymakers will be able to create more effective policy tools and engagement initiatives to promote sustainable environmental and natural resource use and management thanks to this improved understanding of rural women's environmental behavior and the factors that shape their attitudes.

Research objectives

1. Identifying rural women's attitude towards some environmental domains (Rural

tourism, Sustainable methods of using and conservation of forests, Sustainable agriculture, and Home waste management).

- Identifying a correlation between rural women's attitude towards some environmental issues as dependent variable and some independent variables (Age, Level of education, Material status, Current work, satisfaction with services in the village, Agricultural information sources, Cultural openness, and Participation in family decision –making) .

MATERIALS AND METHODS

This study focuses on the Duhok Governorate, which is situated in the northern Kurdistan area of Iraq. The target population in Duhok Governorate consists of all rural women over the age of 18. (507) rural women made up the research's sample, which was chosen using area random sampling, as shown in table (1).

Table (1): The population and sample size of the study.

No.	Districts	Sub-Districts	Villages	Total number	Sample No.	%
1	Akre	Bijel	Zanta	85	66	88
2		Dinarte	Girbishe	207	117	60.622
3	Zakho	Rizgari	Shinava	80	56	80
4		Batifa	Girebiye	66	50	89.286
5	Amedi	Sersink	Ashawa	143	100	75.188
6		Diralok	Harika	181	118	69.006
Total					762	507

(Mukhtar records in the villages were used to determine the number of rural women over 18).

A questionnaire was designed to collect the research data which is consisted of two parts (Independents variables, Attitude scale). Independent variables related to the time of data collection (Age: The age of respondent in years at data collection time. Education level: The level of education of the respondents (Illiterate, Primary, High school, Institute or College) by giving the value (1,2,3,4) respectively. Marital status: social status of the respondent (Married , Single, Divorced, widow) by giving the value (1,2,3,4) respectively. Current work : Type of work which respondent is occupied (Housekeeper, Governmental job ,Private job) by giving the value (1,2,3) respectively. Satisfaction with services in the village, Degree of respondents is satisfied with the services in the village through eight items which is assessed with (Good, Medium, Weak) by giving the value (3, 2, 1) respectively. Agricultural information sources:to determine the agricultural sources of information for the respondents through fifteen items which the answering was with through (Always, Sometimes, Scarcely) by giving each alternative value (3, 2, 1) respectively. Cultural openness: It assesses the degree of cultural openness of respondents by interaction with ten items by answering with (Always, Sometimes, Scarcely) by giving each alternative value (3, 2, 1) respectively. Participation in family decision–making: Through the respondents' answers to twelve questions, the degree of participation in family decision-making is measured with alternatives (High degree, Medium, Low degree) which had values (3, 2, 1) respectively.

The attitude scale had 54 items on an odd Likert scale with the alternatives (Agree, Neutral, and Disagree) and values of (3, 2, 1) for positive items, and (1, 2, 3) for negative items, respectively. Experts' validity for the questionnaire was used. To measure the reliability of the attitude scale, Cronbach alpha formula was used. Its value was (0.945). The data was analyzed by using SPSS 18. Program, and a number of statistical methods were used such as:(Cronbach alpha, Percentages from frequency, Range, Standard deviation, Weighted mean, chi-square, and Coefficient of contingency).

RESULTS & DISCUSSION:

1: Identifying the attitude of rural women towards some environmental issues in general:

The findings in table (2) illustrate the attitude of rural women toward some environmental issues within all studied domains.

Table (2): shows distribution of respondents according to their attitude towards all domains.

Attitude scale categories	Frequency	Percentage %	Hypothetical mean	Actual mean
Negative (54-107)	106	20.907%	108	113.753
Neutral(108)	26	5.128%		
Positive (109-162)	375	73.964%		
Total	507	100%		

The findings in the table (2) imply that rural women generally have a positive attitude toward some environmental issues since the actual mean value is higher than the theoretical mean value. This result can be connected to the relevance of the studied domains and the role of rural development. Because being close to nature promotes relaxation and calmness. As a result, rural women are developing a positive attitude toward various environmental issues.

2. Attitude of the respondents in each domain:

Table (3): The attitude of the respondents in each domain.

Rural tourism domain			Theoretical mean	Actual mean
Attitude categories	Frequency	%	28	29.913
(14-27) Negative	113	22.288%		
28 Neutral	51	10.059%		
(29-42) Positive	343	67.653%		
Total	507	100%		
Home waste management domain			Theoretical mean	Actual mean
Attitude categories	Frequency	%	28	29.254
(14-27) Negative	148	29.191%		
28 Neutral	68	13.412%		

(29-42) Positive	291	57.396%		
Total	507	100%		
Sustainable agriculture domain			Theoretical mean	Actual mean
Attitude categories	Frequency	%	28	29.255
(14-27) Negative	144	28.402%		
28 Neutral	61	12.032%		
(29-42) Positive	302	59.566%		
Total	507	100%		
The sustainable methods of using and conservation of forests domain			Theoretical mean	Actual mean
Attitude categories	Frequency	%	24	25.420
(12-23) Negative	145	28.6%		
24 Neutral	65	12.821%		
(25-36) Positive	297	58.580%		
Total	507	100%		

According to Table (3), the majority of respondents in the four studied domains have a positive attitude. Considering that, the actual mean value is a little higher than the theoretical mean.

3.The correlation between the attitudes of rural women towards some environmental domains and selected independent variables:

to identify the relationship between various independent variables and the respondents' attitudes as a dependent variable, (rc) the coefficient of contingency was used. Table (4) presents the findings of the correlation.

Table (4): the correlation between attitude of the respondents and selected independent variables.

Attitude scale Independent variables	(54-107) Negative		(108) Neutral		(109-162) Positive		X ²	rc
		%		%		%		
1.Age								
(18-39) Years	66	13.018	11	2.170	241	47.535	2.386	0.068 N.S
(40-61) Years	28	5.523	9	1.775	118	23.274		
(62-83) Years	12	2.367	6	1.183	16	3.156		
2.level of education								
Illiterate	24	4.734	4	0.789	130	25.641	19.209	0.191*
Primary school	13	2.564	7	1.381	47	9.270		
High school	18	3.550	8	1.578	48	9.467		
Institute or college	51	10.059	7	1.381	150	29.586		
3.Marital status								
Single	33	6.509	9	1.775	126	24.852	2.466	0.0696 N.S
Married	61	12.032	11	2.170	232	45.759		
Widow	12	2.367	6	1.183	15	2.959		
Divorced	0	0.000	0	0.000	2	0.394		
4.Current work								
House keeper	81	15.976	20	3.945	332	65.483	7.607	0.122 N.S
Governmental job	14	2.761	5	0.986	35	6.903		
Private job	11	2.170	1	0.197	8	1.578		

5.Satisfaction with services in the village (8-13) Low (14-19) Medium (20-25) High	27 68 11	5.325 13.412 2.170	8 12 6	1.578 2.367 1.183	179 180 16	35.306 35.503 3.156	15.276	0.171*
6.Agricultural information sources (12-21) Low (22-31) Medium (32-41) High	28 63 15	5.523 12.426 2.959	6 7 13	1.183 1.381 2.564	175 184 16	34.517 36.292 3.156	17.509	0.182*
7.Cultural openness (10-16) Low (17-23) Medium (24-30) High	36 60 10	7.101 11.834 1.972	11 9 6	2.170 1.775 1.183	206 142 27	40.631 28.008 5.325	16.469	0.177*
8.Participation in family decision-making (13-20) Low (21-28) Medium (29-36) High	10 62 34	1.972 12.229 6.706	7 13 6	1.381 2.564 1.183	31 66 278	6.114 13.018 54.832	5.922	0.107 N.S

As shown in table (4), four variables out of eight have significant correlation with attitudes. There is a significant correlation between the level of education and the attitude of rural women toward some environmental issues. Women's education is regarded as one of the most major considerations that unquestionably helps to improve women's personalities, give them self-confidence, and increase their awareness. The capability to develop a good self-perception is mostly dependent on education (Al-Kharouf, et al, 2005) this is compatible with (Abd Al faraje, 2019) study, but not in accord (Al-Gohary, *et al.*, 2021) study. Rural women's attitudes toward some environmental issues and satisfaction with services in the village are significantly correlated. The level of services rendered by the village's responsible authority may be motivating the rural population to adhere to rules and regulations, which fosters positive attitudes toward the environmental issues under study. This outcome is in disagreement with (Al-Gohary, *et al.*, 2021) study. Rural women's attitudes toward studied environmental issues are significantly correlated with agricultural information sources. Rural women's knowledge may increase with the use of a variety of agricultural information sources, which in turn encourages the construction of positive attitudes. This does not match up with (Abd Al faraje, 2019) study. Rural women's attitudes toward some environmental issues and cultural openness are significantly correlated. Cultural openness helps to broaden the respondents' knowledge of appropriate experiences and behaviors, and when they apply this knowledge, their attitudes change as well (Al-Gohary, *et al.*, 2021). This outcome is consistent with (Al-Gohary, *et al.*, 2021) study.

CONCLUSIONS

The study's findings indicate that most respondents have a positive attitude toward the environmental studied domains, leading us to draw the conclusion that their familiarity with these domains has a beneficial influence on this attitude. The findings revealed that since the majority of respondents in the region have a positive attitude towards rural tourism; it follows that respondents in the region desire to increase interest in rural tourism as a means of marketing their agricultural products and generating employment opportunities for themselves. The results demonstrate that the majority of respondents have a positive attitude toward sustainable methods of using and conservation of forests. This leads to the conclusion that respondents prefer to use forest products—both wood and non-wood—for sustainable profit as opposed to destroying them. The results indicated that the majority of respondents have a positive attitude toward sustainable agriculture. This leads us to the conclusion that respondents prefer to replace traditional farming practices with environmentally friendly ones in order to lower the price of agricultural inputs. The findings indicated that the majority of respondents have a positive attitude toward home waste management. This leads to the conclusion that the media in the region mostly covers issues related to methods of dealing with home waste management and environmental protection in the local area.

RECOMMENDATIONS

To raise the degree of family empowerment in the economic domain, it is necessary to work on adopting development projects. It is also necessary to work on encouraging handicrafts. Recommend the agricultural extension Directorate in the region to focus on training the agricultural extension workers to advance their performance and skills in the use of sustainable agriculture applications. Recommend non-governmental organizations focus on mass media for awareness of rural women about the impact of unsustainable ways to dispose of household waste in different dimensions of life. Providing specialized extension programs for rural women, if these programs are provided at times suitable for rural women and for rural women to be easily accessible to them. These courses are specialized in the domains of the environment, to enhance their attitude towards environmental issues.

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CONFLICT OF INTEREST

The Authors declare that there is no conflict of interest.

اتجاهات المرأة الريفية نحو بعض القضايا البيئية في محافظة دهوك، إقليم كردستان العراق

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الخلاصة

الهدف الرئيسي من هذه الدراسة هو التعرف على اتجاهات المرأة الريفية نحو بعض القضايا البيئية في محافظة دهوك، إقليم كردستان العراق. استخدمت طريقة المعاينة العشوائية المساحية (متعددة المراحل) لاختيار عينة البحث وبلغت 507 امرأة ريفية. تم تصميم استبيان لجمع بيانات البحث، ويتكون من جزأين، قياس المتغيرات المستقلة ومقياس الاتجاهات الذي يتكون من 54 فقرة موزعة على أربعة مجالات (السياحة الريفية، إدارة النفايات المنزلية، الزراعة المستدامة، الأساليب المستدامة في استخدام الغابات والحفاظ عليها). تم استخدام صدق الخبراء في تحقيق مصداقية مقياس الاتجاهات، واستخدام معامل ألفا كرونباخ لقياس ثبات المقياس وبلغت قيمته 0.945. تم تحليل البيانات باستخدام برنامج SPSS أظهرت النتائج أن اتجاه المبحوثات تجاه كافة المجالات البيئية المدروسة إيجابي. كما أظهرت النتائج وجود علاقة ارتباط معنوية بين اتجاهات المبحوثات وكل من المتغيرات التالية (مستوى التعليم، الرضا عن الخدمات في القرية، مصادر المعلومات الزراعية، الانفتاح الحضاري). بينما لا يوجد ارتباط معنوي مع: (العمر، الحالة الزوجية، العمل الحالي، والمشاركة في اتخاذ القرار الاسري). وتضمن البحث بعض الاستنتاجات والتوصيات. الكلمات المفتاحية: الاتجاهات، المرأة الريفية، قضايا البيئية.

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