Trends of Rural Women in Reducing Environmental Crises in Nineveh Governorate/Hamdaniya District and its Relationship to Some Variables

Rana Hamdallah Al-Daoudi[1*] rana.24agp104@student.uomosul.edu.iq

.Wissam Yako Aziz[2]wisam_yako@uomosul.edu.iq

Abstract

The research aimed to identify the trends of rural women in reducing environmental crises in Nineveh Governorate/Al-Hamdaniya District, then determine the relationship Correlation between rural women's attitudes in reducing environmental crises with the following independent variables: (number of family members, membership in organizations, exposure to sources of information related to the environment, rural women's awareness of preserving the environment Contribution of rural women to plant production activities) The comprehensive research consisted of (338) rural women, and data was collected in a questionnaire form from the Hamdaniya district and the Bartella and Nimrud districts, where the form consisted of two parts: The first part includes the personal and social characteristics of rural women, while the second part includes the attitudes of rural women in reducing environmental crises. The reliability was extracted using the Alpha Crowe-Nebach equation, by taking a survey sample consisting of (30) subjects, and the reliability value reached (0.87), after which the data was collected, transcribed, and analyzed using the (spss) program The results of the research showed that the attitudes of rural women in reducing environmental crises were neutral to positive. When finding the correlation between rural women's attitudes in reducing environmental crises with a group of independent factors studied, a correlation appeared between (membership in organizations, rural women's awareness of preserving the environment, exposure to sources of information related to the environment The contribution of rural women to plant production activities), and in light of the conclusions reached by the researcher, the researcher recommends excluding the variables that were used in this study and using other independent variables that contribute more to Upcoming studies to measure the trends of rural women in reducing environmental crises.

Keywords: Rural women, Environmental crises, Trends.

Introduction

In recent years, the term environment has become popular and people have often used it excessively. We often hear about the cultural environment, the social environment, the urban environment, the water environment, and the work environment... And other common uses, some might even think This word is linked to all aspects of life [1, 2], indicates that the environment includes all the existing things surrounding it, such as soil, water, air, living animal and plant organisms, inanimate objects, and a social environment And civilization and culture in which it lives, influences it, is affected by it, and carries out its various activities.Therefore, the environment can be considered the issue of this era.Every era has an issue that imposes itself and occupies minds, as the issue of this era is the environment, and this is due to deterioration Environmental conditions in many parts of the world have become unsuitable for the life of various types of living organisms, and leave its effects on the health and safety of humans, animals

and plants [3]. In this regard, recent years have witnessed concern Increasingly regarding environmental preservation and the crises and pollutants to which it is exposed, as many countries have been exposed over the past years to a group of crises, including floods, hurricanes, earthquakes, drought, frost, and severe heat waves, and all of these Natural and has nothing to do with humans. As for environmental pollution crises of various types, such as water, air, and soil, they are man-made and cause great harm to them and threaten their health and resources [4]. As a result, environmental crises that include all The elements and components of the environment, such as water, air, and soil, have become a general phenomenon that we feel in urban areas, but the countryside has increasing environmental crises, which include all elements of the environment, as the rural environment is the most exposed to many wrong behaviors that Many forms cause pollution and environmental crises, for example, the bulldozing of agricultural lands and construction on them, excessive use of irrigation water, and the use of fertilizers and chemical pesticides [5], and there is no doubt that women Rural areas have a major and influential role in preserving the environment and reducing environmental crises, despite the legacies of various customs and traditions that still control the role of women in society and limit their participation and contributions to reducing environmental crises Preserving the environment [6], through its good management of its roles through its daily and repeated activity with the environment, and on the other hand, unconscious behavior in dealing with environmental resources such as poor use of water Misbehavior in dealing with household waste, in addition to the use of traditional sources in energy production, all of these behaviors directly or indirectly affect the environment [7]. Agricultural extension is concerned with women Rural women, as one of the target groups, bear the greatest burden in changing the negative attitudes of rural women towards their environment, and emphasizing and strengthening the positive attitudes towards them, as rural women represent a significant element in the countryside due to their diversity Their roles are inside and outside the home, and therefore the greatest part falls on them in preserving the elements of the rural environment, such as water, air, and soil [8]. Environmental attention must take two directions, one of which calls for the issuance of environmental legislation The second is to spread environmental awareness among all citizens to increase their knowledge, change their attitudes, and make their practices environmentally friendly, which ultimately leads to protecting, preserving, and preserving the environment From pollution and environmental crises [9]. Given that rural women are affected and influenced by the surrounding environment, it can be said that they are primarily responsible for protecting the environment from the crises to which they are exposed, as they are able to educate the children of the next generation Disciplined environmental behaviors, which calls for attention to the behavior of these rural women to increase their knowledge, change their attitudes, and make their practices environmentally friendly, which ultimately leads to protecting, preserving, and preserving the environment from degradation and pollution [10]. From this standpoint, the need to conduct this research on rural women emerged, and therefore the

research problem crystallized into the following question: What is the type of attitudes of rural women in Nineveh Governorate/Hamdaniya District towards reducing environmental crises?

The answer to the previous question may lead to clarifying the truth about rural women's trends in reducing environmental crises and some of the variables associated with them, in addition to the fact that there is a clear deficiency in the volume of studies that have addressed them Trends of rural women related to the activities studied in Nineveh Governorate/Hamdaniya District so that their educational and training needs in this vital field can be met.

research objectives:

1- Identifying the level of attitudes of rural women to reduce environmental crises in Nineveh Governorate/Hamdaniya District.
2- Arranging paragraphs on rural women's attitudes to reducing environmental crises according to their relative importance.
3- Finding the correlation between rural women's attitudes to reducing environmental crises and each of the independent variables (number of family members, membership in organizations, exposure to sources of information related to the environment, rural women's awareness of preserving the environment, rural women's contribution to plant production activities)

Material and Methods

As for the comprehensive research, all rural women officially registered in the Nineveh Agriculture Directorate, Al-Hamdaniya District, and its affiliated districts, amounting to (382) rural women, were represented, according to books received from the Nineveh Agriculture Directorate . 30 women were excluded to measure the reliability of the questionnaire, and some questionnaire forms were neglected due to incomplete information, and thus the research became comprehensive, consisting of (338) rural women distributed in the Hamdaniya district and the Nimrud and Bartella districts

research tools:

For the purpose of achieving the research objectives, the researcher prepared a questionnaire form that consisted of two parts.

first part:

The questionnaire included a set of independent variables for rural women in Al-Hamdaniya district and its affiliated districts. The variables included a set of questions to measure personal characteristics, namely (number of family members Membership in organizations, exposure to sources of information related to the environment, rural women's awareness of preserving the environment, rural women's contribution to plant production activities) and these variables were measured as follows:

1. Number of family members: This variable was measured by asking the respondent about the number of her family members who reside with her permanently. Four categories of responses were given One individual, (2-4) individuals, (5-7) individuals, more than (7) individuals and were given numerical codes (1, 2, 3) respectively:

2. Membership of organizations:. This variable was measured by asking the female respondents about their membership in any social organization in the village. The answer was (yes first) and was given numerical symbols (1, zero) respectively
3. Exposure to sources of information related to the environment: This means the sources that female researchers resort to to obtain information related to how to reduce environmental crises and the degree of exposure to those sources, as (8) sources have been identified A score was given for each source mentioned, and the scores were summed to express the overall score for the scale.Thus, the theoretical range ranges from (7-21)
4. Rural women's awareness of preserving the environment: It means the extent to which rural women respond in support, opposition, or neutrality to some environmental practices through (7) paragraphs, and the alternatives are given numerical values(3) Always, (2) Sometimes, and (1) Rarely. Thus, the theoretical range ranges between (7-24):
5. The contribution of rural women to plant production activities: This means the extent of the researcher's participation in agricultural operations through five agricultural operations, and the answers were given numerical values: 3 (always), 2 (sometimes), and1(rarely). Thus, the theoretical range ranges between (5-15)

part two:

Dependent variable

This part includes measuring the trends of rural women in reducing environmental crises:

Where the paragraphs were identified, amounting to (24) paragraphs. The answer categories were: (agree, neutral, disagree).

Honesty & Consistency

A random survey sample was selected consisting of (30) rural women distributed in Al-Hamdaniya District and its affiliated districts.The survey sample was excluded from the basic research sample, and sample data was collected The survey was conducted through a questionnaire form through personal interviews with rural women.For the purpose of ensuring the apparent truthfulness and truthfulness of the content in its initial form, the questionnaire form was presented to experts in the fieldAgricultural extension at the College of Agriculture and Forestry, University of Mosul, and in the Department of Agricultural Extension and Rural Development at the University of Baghdad, after the experts explained their opinions and observations regarding each paragraph, the suggestions made by the experts regarding some amendments and changes in some paragraphs were also taken into account The standard, in its initial form, consists of (24) paragraphs

To measure reliability, the initial test of the questionnaire was conducted on a sample of (30) rural women, who were excluded from the basic research group and were taken randomly from the research population The initial test data was statistically analyzed using the Vacrobnach equation, and the stability coefficient value reached (0.87).

Results and Discussion

Identifying the level of attitudes of rural women to reduce environmental crises in Al-Hamdaniya district

The studies were distributed into three categories using the theoretical range to

determine the length of the category, and on the basis of it, the categories are divided The lowest value reached (24), while the highest value reached (72).The length of the category reached (16), and thus the first category was determined (24-39), while the last category (56-72) The results presented in Table (1) show that (90), or 26.6%, of rural women have a negative trend towards reducing environmental crises, and (145), or 42.9%, have a neutral trend While (103), 30.5% of them, have a positive attitude towards this field, the arithmetic average of rural women's tendency to reduce environmental crises reached 2.3018, with a standard deviation of.(4597).

Table 1. Distribution of rural women according to the level of their trends in reducing environmental crises

Trend categories	Frequency	Percentage	Arithmetic mean	Standard deviation
(39-24) Negative	90	%26.6	2.3018	45971
Neutral (55-40)	145	%42.9		
Positive (72-56)	103	%30.5		
Total	338	%100		

Previous results indicate that the attitudes of rural women in reducing environmental crises are neutral to positive, which indicates the existence of a degree of environmental awareness and desire to contribute to solutions, albeit to varying degrees.

Arranging the paragraphs on rural women's trends in reducing environmental crises according to their relative importance to the researchers

The paragraphs are arranged according to their relative importance and as shown in Table No.(2)

Table 2. Ranking of trend paragraphs according to their relative importance to rural women

	Paragraphs	level	arithmetic mean	Weight percentile
11	I believe that the best solution to eliminate pests is to use chemical pesticides in the recommended quantities	1	2.64	88.0
9	I think fines should be imposed on those who waste water	2	2.63	87.6
8	I prefer to use municipal ovens (clay) for baking instead of gas ovens	3	2.62	85.3
3	Always be careful not to bulldoze agricultural lands	4	2.59	86.3
10	I believe that using organic pesticides instead of chemicals preserves agricultural soil	5	2.56	85.3
12	It bothers me to throw empty pesticide cans into the river	6	2.53	84.3
15	When watering crops, it is best to use modern irrigation methods	7	2.52	84.0
2	I think that reusing household waste is better than burning it	8	2.50	83.0
5	I prefer to use firewood for cooking and heating, even if the air becomes polluted	9	2.47	82.3
3	Always be careful not to bulldoze agricultural lands	4	2.59	86.3
10	I believe that using organic pesticides instead of chemicals preserves agricultural soil	5	2.56	85.3
12	It bothers me to throw empty pesticide cans into the river	6	2.53	84.3
15	When watering crops, it is best to use modern irrigation methods	7	2.52	84.0
2	I think that reusing household waste is better than burning it	8	2.50	83.0
5	I prefer to use firewood for cooking and heating, even if the air becomes polluted	9	2.47	82.3
19	I believe that using pesticides and chemical fertilizers in the recommended quantities ensures the elimination of pests	10	2.40	80. 0
14	It is best to store pesticides and fertilizers at home	11	2.34	78.0
22	I oppose the establishment of poultry farms and animal pens near	12	2.33	77.6

	residential areas			
4	Submerge plants with water outside the plant's need	13	2.30	13.5
18	I believe that constantly using air fresheners at home harms the air	14	2.30	13.5
13	It is best to have a livestock barn near the house	15	2.08	69.3
17	I want to use large sprays of insecticides to eliminate household insects	16	2.07	69.0
20	I see that excessive use of chemical fertilizers improves the yield	17	2.04	68.0
21	To save costs, I burn firewood and straw	18	2.02	67.3
7	I believe that burning household and agricultural waste is the easiest solution to get rid of it	19	2.01	67.0
6	The best planting of trees and green plants	20	2.00	66.6
23	I see that removing cooking fat in the sink affects the water	21	1.92	64.0
16	I want to constantly use air fresheners at home	22	1.75	58.3
1	I think that using modern irrigation methods is expensive	23	1.40	46.6
24	I believe that building on agricultural lands is necessary to provide housing for rural people	24	0.94	31.3

Table (2) shows that the paragraph that ranked first in the ranking of paragraphs in the field of environmental trends is (I believe that the best solution to eliminate pests is to use chemical pesticides in the recommended quantities With an arithmetic mean of (2.64) and a percentage weight of (88.0), this indicates that most rural women tend to support the use of chemical pesticides as the main solution to combating agricultural pests, and they consider this solution to be the same The most appropriate in terms of ease of implementation, especially since it was carried out according to the recommended quantities. The paragraph that came in last place is (I believe that building on agricultural lands is necessary to provide housing for rural people) with an arithmetic average of (0.94) and a percentage weight of (31.3) This indicates that a small percentage of rural women support building on agricultural land to provide housing, which reflects appreciation of the importance of agricultural land and women's awareness of its impact on agriculture and food security.

Finding the correlation between rural women's attitudes to reducing environmental crises and each of the independent variables (number of family members, membership in organizations, exposure to sources of information related to the environment, rural women's awareness of preserving

the environment, rural women's contribution to plant production activities)

1. Number of family members: The studies were distributed into three categories using the actual range of 1-7 or more, as shown in Table No.(3), where the results showed that 23 of the women were rural The number of their family members ranges from (one individual) by 6.8%, 123 of them are between (2-4) individuals by 36.4%, 128 are between (5-7) by 37.9%, and 64 are more than 7 individuals by 18.9% It was found that the largest percentage of the female respondents' families ranged in number from (5-7) family members.

Table 3. Distribution of research according to the number of family members

categories	Frequency	Percentage	Calculated chi-square value	Tabular chi-square value	degree of freedom
(one individual)	23	%6.8	2.4	7.815	3
(4-2)Individuals	123	%36.4			
(7-5)Individuals	128	%37.9			
(more than 7 people)	128	%18.9			
total		%100			

To determine the significant correlation between the attitudes of rural women in reducing environmental crises according to the variable of the number of family members using the Chi-square, it was found that the calculated Chi-square value was (2.4) at a degree of freedom (3), which is less than the tabular Chi-square value (7.815) At a significant level (0.05), that is, there is no significant correlation between the two variables.Thus, we accept the null hypothesis, which states that there is no significant correlation between the attitudes of rural women in reducing environmental crises according to the number of family members This indicates that rural women in small and large families may face similar environmental challenges and that their trends are not significantly related to the number of family members

2. Membership of Organizations: The female researchers were classified into two categories using the actual range as shown in Table No.(4).It was found that 24 of the rural women, 7.10%, belonged to membership in organizations, and 314 of them, 92.9%, did not belong to membership in organizations.

Table 4. Distribution of research according to membership of organizations

Categories	Frequency	Percentage	Calculated chi-square value	Tabular chi-square value	degree of freedom
Member	24	%7.10	11.72	5.991	2
non-member	314	%92.9			
Total	338	100			

To determine the significant correlation between rural women's attitudes in reducing environmental crises according to the variable of organization membership using the chi-square, it was found that the calculated chi-square value was (11.72) at a degree of freedom (2) It is more than the tabular chi-square value (5.991) at a significant level (0.05), meaning there is a significant correlation between the two variables.Thus, we reject the null hypothesis, which states that there is no significant correlation between the attitudes of rural women in reducing environmental crises according to the membership of organizations This indicates that women who participate in organizations may have more effective attitudes in reducing environmental crises compared to women who do not belong to organizations.

3. **Exposure to sources of information related to the environment**: It was divided into three categories according to the theoretical range, with the lowest value according to the degree given to the alternatives being (7) and the highest value being (21), as shown in Table No.(5) The results showed that 193 of the female respondents obtained sources of information related to the environment from (7-9) at a rate of 57.1%, 85 of them at a rate of 25.1% from (10-16), and 60 of them at a rate of 17.8% from (17-21).

Table 5. Distribution of research according to exposure to sources of information related to the environment

Categories	Frequency	Percentage	Calculated chi-square value	Tabular chi-square value	degree of freedom
(9-7)LOW	193	%57.1			
(16-10)Average	85	%25.1			2
(21-17)High	60	%17.8	19.179	5.991	
total	338	%100			

To determine the significant correlation between rural women's attitudes to reducing environmental crises according to the variable of exposure to sources of information related to the environment using the chi-square It turned out that the calculated chi-square value was (19.179) at a degree of freedom (2), which is more than the tabular chi-square value (5.991) at a significant level (0.05) That is, there is a significant correlation between the two variables, and thus we reject the null hypothesis, which states that there is no significant correlation between the attitudes of rural women in reducing environmental crises according to the variable of exposure to sources of information related to the environment This indicates that rural women who have access to sources of information related to the environment have more positive attitudes in dealing with environmental crises, as the presence of this information may help them make better decisions on

how to deal with environmental crises and increase their environmental awareness.

4. Rural women's awareness of environmental conservation: It was divided into three categories according to the theoretical range, with the lowest value according to the degree given to the alternatives being (7) and the highest value being (21), as shown in Table No.(6) It was found that 28 of the rural women, 8.3%, had a low level of environmental awareness, while 96, 28.4% of them had an average level of awareness While the vast majority of the 214 female respondents, 63.3% of the total female respondents, are in the category (17-21), which indicates a high level of environmental awareness.

Table 6. Distribution of female respondents according to their environmental awareness

Categories	Frequency	Percentage	Calculated chi-square value	Tabular chi-square value	degree of freedom
(10-7)low	28	%8.3	15.23	5.991	2
(16-11) Average	96	%28.4			
(21-17)high	214	%63.3			
total	338	%100			

To determine the significant correlation between rural women's attitudes in reducing environmental crises according to the environmental awareness variable using the chi-square, it was found that the calculated chi-square value was (15.23) at a degree of freedom (2) It is more than the tabular chi-square value (5.991) at a significant level (0.05), meaning there is a significant correlation between the two variables.Thus, we reject the null hypothesis, which states that there is no significant correlation between the attitudes of rural women in reducing environmental crises according to their environmental awareness This indicates that rural women who have greater environmental awareness have effective attitudes in confronting and reducing environmental crises .

5. Contribution of rural women to plant production activities.

It was divided into three categories according to the theoretical range, with the lowest value according to the degree given to the alternatives being (7) and the highest value being (21), as shown in Table No.(7) It was found that 64 of the rural women, or 18.9% of the rural women working in the field of plant production activity, are in the low-contributing category, and 202 of them, or 59.8%, are in the medium-contributing category, while 72, or 21.3%, of them are in the high-contributing category.

Table 7. Distribution of research studies according to their contribution to plant production activities

Categories	Frequency	Percentage	Calculated chi-square value	Tabular chi-square value	degree of freedom
(6-5)LOW	64	%18.9	6.963	5.991	2
(11-7) Average	202	%59.8			
(15-12)High	72	%21.3			
Total	338	100			

To determine the significant correlation between the attitudes of rural women in reducing environmental crises according to the variable of contribution to plant production activities using the chi-square, it was found that the calculated chi-square value was (6.963) at a degree of freedom (2) It is more than the tabular chi-square value (5.991) at a significant level (0.05), meaning there is a significant correlation between the two variables.Thus, we reject the null hypothesis, which states that there is no significant correlation between the attitudes of rural women in reducing environmental crises according to their contribution to plant production activities This indicates that rural women who participate in plant production activities have increased knowledge and skills and thus have more effective attitudes in dealing with and reducing environmental crises.

Conclusion

1. The results showed that the attitudes of rural women in reducing environmental crises are neutral to positive.We conclude from this that rural women have a degree of awareness and interest in environmental crises, although it is not very high, it is not negative.
2. As for arranging the paragraphs on the trends of rural women according to their importance, it turns out that the paragraph I believe that the ideal solution to eliminate pests is to use chemical pesticides in the recommended quantities (with an arithmetic mean of (2.64) and a percentage weight of (88.0) This indicates that most rural women tend to support the use of chemical pesticides as the main solution to combat agricultural pests, and that they consider this solution to be the most appropriate in terms of ease of implementation, especially since it is carried out according to the recommended quantities The paragraph that came in last place is (I believe that building on agricultural lands is necessary to provide housing for rural people) with an arithmetic average of (0.94) and a percentage weight of (31.3) This indicates that a small percentage of rural women support building on agricultural land to provide housing, which reflects appreciation of the importance of agricultural land and women's awareness of its impact on agriculture and food security
3. The results showed that there is a significant correlation between each of the variables (membership of organizations, exposure to sources of information related

to the environment, rural women's awareness of preserving the environment, rural women's contribution to plant production activities) We conclude from this that these variables are critical variables and have a significant impact on the attitudes of rural women in reducing environmental crises, and it is preferable to rely on them in other studies while measuring the attitudes of rural women..

Recommendations

In light of the research results, the researcher recommends the following

1. Intensifying extension efforts to educate rural women about ways to preserve the rural environment from environmental crises
2. Strengthening environmental awareness programs directed at rural women
3. The study recommends the necessity of implementing periodic awareness campaigns that shed light on contemporary environmental crises and clarify the role of rural women in reducing environmental crises, while using simplified methods appropriate to the cultural and social context of the countryside
4. Empowering rural women by involving them in local environmental initiatives such as sustainable agriculture, recycling, and preserving natural resources, as this has a positive impact in enhancing their environmental behaviors
5. Providing the necessary technical and material support to implement environmental practices: The results confirm the importance of providing tools, technical means, and training courses that enable rural women to adopt environmentally friendly practices effectively and sustainably
6. Integrating environmental education concepts into non-formal education programs: The study recommends including the principles of sustainability and environmental preservation within literacy and adult education curricula directed at rural women, with the aim of consolidating environmental values and increasing their environmental awareness
7. Supporting studies and community initiatives of an environmental nature: The study stresses the importance of encouraging scientific research and local initiatives that focus on rural women and the environment, with the aim of revealing the challenges they face, and working to develop intervention strategies that suit the specificity of the rural community

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