

The Reality of Extension Works in the Directorate of Agricultural Extension and Agricultural Research In Kurdistan Region of Iraq



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ABSTRACT

The study aims to identify the reality of extension works in the Directorate of Agricultural Extension and Agricultural Researches in the Kurdistan region of Iraq, and the study area included all governorates of the Kurdistan Region of Iraq (Germian, Erbil, Sulaymaniyah, Dohuk). The research community included all workers in agricultural extension, agricultural research, and agricultural directorates in all governorates, there were 215 respondents. The sample of the respondents includes (71) representing 33% of the population, taken by a simple random sampling method. The data were collected through personal interviews; questionnaire was prepared for this purpose. To confirm the validity, the questionnaire was reviewed by some experts. In general, the reality of extension work was described by the respondents (extension workers and agricultural engineers working in the Agricultural Research and Extension Directorate) as weak. Conducting training courses for agricultural extension workers regarding methods and methods of communication to work with farmers, emphasizing the importance and necessity of linking and coordinating between agricultural extension and education (universities) to graduate a qualified agricultural guide. Cooperation with other research agencies that work on producing and generating agricultural scientific information and practices approved by the Ministry of Agriculture.

Index Terms: The extension work, Directorate of Research and Agricultural Extension

1. INTRODUCTION

The agricultural sector is considered one of the most important productive sectors in the economy of most countries in general, and the developing ones in particular [1]. Agriculture plays a fundamental role in raising the economic and social level of farmers and constitutes a major source of national income, and a field

for the work of the vast majority of the population of countries around the globe [2].

The agricultural sector in the Kurdistan Region plays an important role in the region's economy, as it is responsible for achieving self-accumulation to develop itself and to secure a profuse used in the development of other sectors, in addition to providing food consumption requirements for all citizens and employing a lot of the workers [3].

The agricultural sector undertakes the following contributions:[4]

The contribution of agriculture to production local, the contribution of agriculture to the agri-food industries, as it

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works to secure the raw materials needed for it, and it also supplies agricultural industries factories with the raw materials needed for them, as is the case in tobacco, spinning and weaving factories, and others [1].

Since its inception, agricultural extension has had a role in bringing about agricultural and rural development, as it contributes to raising the economic efficiency of agricultural production through education and training activities and the transfer of technological information, which leads to improve agricultural production, increasing farmers' incomes, and improving working conditions and economic conditions for agricultural workers. Countries of the world adopt it, expand its scope, use it, and secure its requirements to perform its functions in the best way [5].

The agricultural extension plays an important role in documenting the relationship between the technical of agriculture and farmers [5], as its mission is to simplify and transmit information and scientific research results and include them in extension programs, and use various extension methods and means to reach farmers adopt modern agricultural methods, and work to increase production, raise farm incomes, and improve the economic and social level of farmers [6].

The extension is responsible for the process of disseminating modern agricultural ideas and practices by transmitting research results to farmers in a simple and applicable way, persuading and teaching them to put them into practice in accordance with their conditions to achieve high productivity, raise the economic level, and adapt to new changes [7].

The importance of the research is evidenced by the basic roles; the agricultural extension apparatus plays in the process of economic development, as the extension process depends on the guide as a crucial element in field extension activities, and a main tool for the delivery of extension services to farmers, and the transfer of their needs and desires to the concerned authorities to address them and find solutions to them. This requires that extension workers, including extension agents, have certain characteristics, to be able to work with farmers successfully [1], [2], [3], [4], [5].

The extension programs are considered an essential and important element in the extension process (extension work), and to be able to assess his work and the extent to which he

is able to perform his mission to the fullest, it is necessary to study the reality of the extension work [8].

The following are some defines about of research:

defines it as “an informal educational service performed outside of school for the purpose of training and influencing farmers and their families.” This is for the purpose of adopting improved means in agricultural production, both plant and animal, as well as in marketing, farm management, and soil conservation [9], [10].

The extension planning “Is group from the works or the process which it has been by limiting of the extension program exclusion steps and from within the work the commissions inside the agricultural extension and the farmers” [11], [12].

Definition of implementing agricultural extension work: “It is carrying out all the steps that were written in the planning process for agricultural extension work.” [13].

Define the extension evaluation: “Is the judgment on activity or value the extension program according to standards limited perceptible results” [14], [15].

Therefore, the research came to answer the following questions:

1. What is the reality of the extension work in the field of (planning, implementation, and evaluation process)?
2. What are the most important problems facing agricultural extension work?

The study aims to focus on the following is identified:

1. Identify the reality of the extension work (the process of planning, implementation, and evaluation).
2. Identify the problems facing the extension work.

2. RESEARCH METHOD

Research method: In the field, this research follows that the descriptive approach was used in the process of collecting data from the respondents (agricultural extension workers) because it is considered an appropriate method for obtaining data. This method is considered one of the branches of the curriculum and descriptive in social research [6].

Research population: The field survey was conducted in four regions: (Garmian, Erbil, Sulaymaniyah, and Dohuk). The

research included all agricultural extension specialists working at the General Authority for Agricultural Research and Extension and its branches, and the number of the research community reached 215 female agricultural extension workers [Table 1].

Research sample: Sample of the respondents includes (71) representing 33% of the population, taken by a simple random sampling method as shown in Table 1.

2.1. Data Collection

The questionnaire removal was prepared for the sake of collecting data, and the questionnaire consisted of two parts; the first part related to the reality of the indicative work: as a scale was prepared to measure the reality of the extension work and it consisted of three levels (weak 1, medium 2, good 3), and the second part concerned the main problems facing the extension work.

Building the scale: A tripartite scale was prepared to identify each of them (the reality of the planning process, the implementation process, and the evaluation process of extension work). The number of items for each topic of the reality of extension work was 10 items and the range of each topic was 1–30. This scale contains three levels (weak level with a score of 1–10, medium level with a score of 11–20, good level with a score of 21–30).

The face validity and content validity of the questionnaire were measured by presenting it to a group of experts in the field of agricultural extension. The initial test (pre-test) was conducted in July 2014 on a sample of 14 individuals. To measure the validity of the questionnaire, the questionnaire was distributed to a group of fig farmers (from outside the research sample), using the Pearson equation to obtain reliability and validity values of 0.71 and 0.84 degrees, respectively.

The data collection process was conducted from the respondents in the governorates, districts, and sub-districts

TABLE 1: Show the population and study sample of the respondents

No.	City	Population	The percentage	Sample
1	Germian	19	33	6
2	Sulaymaniyah	122	33	40
3	Erbil	41	33	14
4	Dohuk	33	33	11
Total	-----	215	-----	71

Source: Ministry of Agriculture - Kurdistan Region, Iraq 2014.

of the Kurdistan Region, using the questionnaire form and the personal interview, for the period between August 11, 2014, and September 12, 2014, when 71 forms were collected.

After the completion of data collection, unpacking, and classification, it was analyzed using the Statistical Analysis Program (SPSS) for the social sciences.

3. RESULTS AND DISCUSSION

1. Identifying the reality of extension work (planning, implementation, and evaluation process):

The General Directorate of Agricultural Research and Extension carries out the planning, implementation, and evaluation process for all extension activities and works in cooperation with other agricultural departments and branches affiliated with the General Directorate of Agricultural Research and Extension in all governorates of the region.

Table 2 shows the reality of the extension work (the planning process), which includes a set of topics of the planning process for extension work that was covered by the study. The results of the study showed the percentages of this process (the planning process), which are as follows:

1. The percentage of the weak level ranges between 77 and 35%.
2. The percentage of the medium level ranges between 31 and 16%.
3. The percentage of good levels ranges between 34 and 7%.

It used in conclusion from Table 2 is that more than half of the respondents (extension workers and agricultural engineers working in the Agricultural Research and Extension Directorate) described the reality of the extension work (the planning process) as weak.

Table 3 shows the reality of the extension work (implementation process), which includes a set of stages or topics of the implementation process of the extension work which were covered by the study and the results of the study showed the percentages of this process (implementation process), which are as follows:

1. The percentage of the weak level ranges between 84 and 49%.
2. The percentage of the medium level ranges between 44 and 16%.

TABLE 2: The reality of the extension work (planning process)

No.	Items	Frequency	%	The level
1.	Putting extension work plans by specialists	38	54	Weak
		20	28	Medium
		13	18	Good
2.	Flexibility in the work plan	25	35	Weak
		22	31	Medium
		24	34	Good
3.	Method of developing a work plan	46	65	Weak
		12	17	Medium
		13	18	Good
4.	The basis for the approved work plan	30	42	Weak
		21	30	Medium
		20	28	Good
5.	Calculate work plan costs	41	58	Weak
		15	21	Medium
		15	21	Good
6.	Limits of the work plan	39	55	Weak
		14	20	Medium
		18	25	Good
7.	Effectiveness of the work plan	49	69	Weak
		14	20	Medium
		8	11	Good
8.	Following the work plan	50	70	Weak
		11	16	Medium
		10	14	Good
9.	Suitable for the work plan with the needs of farmers	37	52	Weak
		21	30	Medium
		13	18	Good
10.	Existence of a work plan evaluation process	55	77	Weak
		11	16	Medium
		5	7	Good

3. The percentage of good levels ranges between 16 and 0%.

It used in conclusion from Table 3 is that more than half of the respondents (extension workers and agricultural engineers working in the Agricultural Research and Extension Directorate) described the reality of the extension work (implementation process) as weak.

Table 4 shows the reality of the extension work (the evaluation process), which includes a group of stages or topics of the evaluation process for the extension work that was covered by the study, and the results of the study showed the percentages of this process (evaluation process), which are as follows:

1. The percentage of the weak level ranges between 33 and 48%.
2. The percentage of the medium level ranges between 12 and 34%.
3. The percentage of good level ranges between 4 and 12%.

It used in conclusion from Table 4 is that more than half of the respondents (extension workers and agricultural

TABLE 3: The reality of the extension work (implementation process)

No.	Items	Frequency	%	The level
1.	The implementation of the extension work is carried out by specialists	41	58	Weak
		20	28	Medium
		10	14	Good
2.	Implement the principle of flexibility in the extension work	37	52	Weak
		23	32	Medium
		11	16	Good
3.	Using educational methods suitable with the needs of farmers	45	63	Weak
		15	21	Medium
		11	16	Good
4.	The implementation of the extension work be within the financial, material, and human capabilities	35	49	Weak
		26	37	Medium
		10	14	Good
5.	Conducting the following process for the implementation of the extension work	60	84	Weak
		11	16	Medium
		0	0	Good
6.	The implementation process is suitable to achieve the aims	41	58	Weak
		15	21	Medium
		15	21	Good
7.	The effectiveness of the extension work implementation process	38	54	Weak
		23	32	Medium
		10	14	Good
8.	Process of implementation extension work is within the limits of needs and objectives	40	56	Weak
		20	28	Medium
		11	16	Good
9.	The process of implementation of the extension work was carried out within the limited time	39	55	Weak
		26	37	Medium
		6	8	Good
10.	Conducting the evaluation process for the extension work carried out	35	49	Weak
		31	44	Medium
		5	7	Good

engineers working in the Agricultural Research and Extension Directorate) described the reality of the extension work (evaluation process) as weak.

In general, it can be concluded from the tables with numbers 2–3–4 that the reality of extension work was described by the respondents (extension workers and agricultural engineers working in the Agricultural Research and Extension Directorate) as weak, and this weakness may be attributed to the reality of the work to the following reasons:

1. The littleness of specialized agricultural extension staff who plan, implement, and evaluate extension work.
2. Littleness of experienced employees in the Agricultural Research and Extension Directorate in the field of extension work.
3. Weakness or no training courses in the field of extension work for employees of the Agricultural Research and

TABLE 4: The reality of the extension work (evaluation process)

No.	Items	Frequency	%	The level
1.	Evaluation of extension work plan and implementation	47	47	Weak
		17	17	Medium
		7	7	Good
2.	Flexibility evaluation in extension work during the planning and implementation	47	47	Weak
		15	15	Medium
		9	9	Good
3.	Evaluation of educational methods with the needs of farmers in the extension work	33	33	Weak
		34	34	Medium
		4	4	Good
4.	Evaluation of the financial, material, and human capabilities used in the extension work	36	36	Weak
		31	31	Medium
		4	4	Good
5.	Evaluating the following process for the extension work	48	48	Weak
		12	12	Medium
		11	11	Good
6.	Evaluation of the effectiveness of the planning and implementation process of the extension work	36	36	Weak
		26	26	Medium
		9	9	Good
7.	The extension work evaluation was within the limits of needs and aims	39	39	Weak
		20	20	Medium
		12	12	Good
8.	Evaluation of the implementation of the extension work was conducted within the specified time	39	39	Weak
		26	26	Medium
		6	6	Good
9.	Evaluation of the aims which it achieved through the implementation of the extension work	44	44	Weak
		16	16	Medium
		11	11	Good
10.	Evaluation of the behavioral changes after implementation of the extension work	47	47	Weak
		13	13	Medium
		11	11	Good

TABLE 5: The percentages of the most important problems facing the reality of extension work

No.	The problem	Frequency	%
1.	Weakness of cooperation between the Agricultural Scientific Research and the Agricultural Research and Extension Directorate	70	98.5
2.	Weakness in agricultural marketing, low prices	70	98.5
3.	Unavailability of money and moral incentives	69	97.1
4.	Unavailability of transportation	66	92.9
5.	Weakness relationship between the farmer and the agricultural guide	64	90.1
6.	Small size and dispersion of agricultural holdings	63	88.7
7.	Unavailability of tools and extension agents	61	85.9
8.	Unavailability of specialized technical staff	59	83

- agricultural techniques.
- Unavailability of specialized technical staff and the overlapping and abundance of agricultural extension workers.
- Unavailability of money and moral incentives to encourage extension work.
- Weakness of cooperation between the agricultural scientific research and the Agricultural Research and Extension Directorate on a permanent and continuous basis, and this leads to a delay in the arrival of the results of the agricultural scientific research to the farmers.
- Weakness relationship between the farmer and the agricultural extension, the lack of response of most farmers to attending the extension seminars, and their lack of conviction in modern technology.
- Weakness agricultural marketing, low prices for agricultural products, and high prices for production inputs compared to the poor income of farmers.
- Small size and dispersion of agricultural holdings, which make it difficult to apply extension programs to them.

- Extension Directorate.
- Identify the problems in the extension work.

A group of the most important technical and administrative problems that the extension work suffers from has been identified or recognized, and the problems Table 5:

- Unavailability of transportation means.
- Unavailability of tools and extension agents such as CD, agricultural films, and television, and the unavailability of extension fields that are used in the process of educating farmers, and thus persuading farmers of modern

4. CONCLUSIONS AND RECOMMENDATIONS

- Littleness of extension staff specialized in agricultural extension, as the General Directorate of Agricultural Research and Extension suffers from it.
- Littleness of experience for workers in the General Directorate of Agricultural Research and Extension in agricultural extension work, i.e., in (planning, implementing, and evaluating) agricultural extension work.

3. Littleness or no participation of workers in the General Directorate of Agricultural Research and Extension in training courses in the field of agricultural extension outside and within the region.
4. Conducting training courses for agricultural extension workers regarding methods and methods of communication to work with farmers.
5. Emphasizing the importance and necessity of linking and coordinating between agricultural extension and education (universities) to graduate a qualified agricultural guide.
6. Cooperation with other research agencies that work on producing and generating agricultural scientific information and practices approved by the Ministry of Agriculture and recommended for use by farmers, as the agricultural guide is the link with the farmer.

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