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Evaluating the efficiency of the agricultural extension system in Iraq from the perspective of agricultural extension workers

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Abstract

This study aims to evaluate the efficiency of the agricultural extension system in Iraq from the perspective of extension workers. The study adopted a descriptive approach and relied on a questionnaire directed at a sample of (234) agricultural extension workers, selected using a proportional stratified sampling method from a population of (630) workers distributed across various Iraqi governorates. The questionnaire included (61) paragraphs divided into sixteen axes, covering the organizational, administrative, and technical aspects related to agricultural extension work. The results of the one-way analysis of variance showed that some areas, such as organizational structure, goal setting, and report writing and filing, did not record significant differences between the three regions (northern, central, and southern). Significant differences, however, appeared in favor of certain regions in other areas, such as policies adopted in favor of the central region, budgets in favor of the northern region, and program implementation methods in favor of the southern region. The study concluded that the extension system suffers from high centralization, weak institutional coordination, and a shortage of human and financial resources. The study recommended the need to develop the organizational structure, activate partnerships with relevant institutions, and improve incentives and logistical support.

Keywords: Extension workers, efficiency assessment, agricultural extension system

Introduction

Agriculture is a vital sector that has witnessed remarkable development in recent decades, thanks to its reliance on modern technologies and advanced production methods. However, these developments will not achieve their goals unless they are widely disseminated and implemented among farmers ^[1]. This makes agricultural rural development a fundamental pillar for enhancing food security and achieving social and economic stability. This development plays a fundamental role in improving infrastructure, providing essential services, and enhancing farmers' productive capacities, thus contributing to reducing the rural-urban gap and raising living standards in rural areas. ^[2] In this context, agricultural extension occupies a pivotal position, as it is an organized educational process that aims to transfer modern technologies and knowledge to farmers and enable them to improve their agricultural practices and increase their productivity in line with the requirements of sustainable development. ^[3] Agricultural extension also contributes to enhancing farmers' awareness of the best methods for managing and sustaining natural resources, through rationalizing the use of water, soil, forests, and pastures. In addition, it plays a role in enabling them to adapt to climate change by providing them with information that helps them confront environmental risks and maintain the stability of agricultural production. ^[4] Extension services are among the most important services that farmers need, as they provide them with practical solutions to various agricultural problems and work to

develop their technical and organizational skills to ensure an improvement in their standard of living. ^[5] Despite this importance, the reality of extension services in Iraq is still below the required level, as they rely mainly on the government sector through the agricultural extension units affiliated with the Ministry of Agriculture. ^[6] However, these units face many challenges, most notably the weak transfer of modern technologies and the inability to respond to needs. Farmers ^[7], in addition to weak coordination with other supporting agencies, lead to a clear gap between set goals and actual results on the ground. ^[8] These challenges negatively impact the efficient use of agricultural resources and the development of plant and animal production, posing a direct threat to food security in light of the continuing decline in the efficiency of natural resource use ^[9] and the low level of agricultural productivity. Numerous scientific studies have emphasized this problem by pointing to the need to review the agricultural extension system ^[10] and evaluate its performance with the aim of enhancing its effectiveness. Based on these data, the need for an in-depth scientific study that seeks to evaluate the efficiency of the agricultural extension system in Iraq from the perspective of extension workers ^[11] emerges. This is to diagnose shortcomings and identify strengths and weaknesses, leading to proposals that contribute to developing the system and improving its ability to achieve sustainable agricultural development. The research sought to answer the following question:

- What is the evaluation of the efficiency of the agricultural

extension system in Iraq from the perspective of agricultural extension workers?

Research Objectives

The study aims to identify statistical differences in the evaluation of the efficiency of the agricultural extension system in Iraq from the perspective of agricultural extension workers.

Research Population and Sample

The research sample of agricultural extension workers

included employees of the Agricultural Extension and Training Department of the Ministry of Agriculture. These workers are distributed among extension centers spread across various Iraqi governorates. According to the sample size determination table of Krejcie & Morgan (1970), communities with a size exceeding 600 are assigned a sample size of 234. After determining the total sample size, the sample size was calculated for each governorate according to the proportional stratified sampling law, based on the distribution of community size in each governorate, as shown in Table 2:

Table 1: Population and Sample of Agricultural Extension Workers in Iraq

No.	Governorate Name	Number of extension workers	Sample size
1	Baghdad	100	37
2	Nineveh	30	11
3	Kirkuk	33	12
4	Anbar	67	25
5	Salah al-Din	33	12
6	Diyala	62	23
7	Wasit	21	8
8	Babil	80	30
9	Karbala	25	9
10	Najaf	32	12
11	Diwaniyah	18	7
12	Dhi Qar	45	17
13	Maysan	14	5
14	Basra	51	19
15	Muthanna	19	7
	Total	630	234

Data Collection Tool

The questionnaire was designed as a tool for collecting data and information directed at agricultural extension workers. This questionnaire included (61) questions distributed across sixteen axes, including: (the organizational structure of agricultural extension, defining the objectives to be achieved, the policies to be followed, the method of implementing extension programs, coordination of work, writing and maintaining reports, determining and obtaining the budget, selecting and training agricultural extension workers, gender, salary and incentives, housing, means of transportation, extension worker travel, monitoring and

evaluation of extension programs, relationships with relevant institutions, and the target audience for extension services).

Results and Discussion

1. The Organizational Structure of Agricultural Extension in Iraq

Table (2) shows the results of a one-way analysis of variance (ANOVA) to test the differences between the three agricultural regions in the assessment of the efficiency of the organizational structure of agricultural extension in Iraq by agricultural extension workers:

Table 2: ANOVA test to determine the differences between the study regions in assessing the efficiency of the organizational structure of agricultural extension from the perspective of extension workers.

Geographic Region	Sample Size	Percentage (%)	Mean Score	Significance Value	Note
Northern Region	23	10.3%	13.7	0.313	No significant differences
Central Region	144	64.4%	13.9	—	—
Southern Region	67	25.3%	14.1	—	—
Total	234	100%	—	—	—

The results of the one-way analysis of variance indicate no significant differences at a significance level of 0.05 or less ($p = 0.313$) between the three geographical regions in the assessment of agricultural extension workers on the organizational structure axis, with the averages being close (from 13.7 to 14.1). This closeness is attributed to the centralized nature of extension work in Iraq, where the administrative and supervisory structure is organized according to unified systems and structures across the country, which is reflected in the similarity of perceptions

among workers in the different regions.

2. The axis of setting the objectives to be achieved

Table (3) shows the results of the one-way analysis of variance, testing the differences between the three agricultural regions in the assessment of agricultural extension workers of the efficiency of setting the objectives to be achieved within the agricultural extension system in Iraq:

Table 3: One-way analysis of variance test, to determine the differences between the study regions in the assessment of the efficiency of setting objectives within the agricultural extension system in Iraq from the perspective of extension workers.

Geographic Region	Sample Size	Percentage (%)	Mean Score	Significance Value	Note
Northern Region	23	10.3%	13.9	0.276	No significant differences
Central Region	144	64.4%	14.1	—	—
Southern Region	67	25.3%	14.0	—	—
Total	234	100%	—	—	—

The results of the one-way analysis of variance indicate no significant differences at a significance level of 0.05 or less ($p = 0.276$) between the three geographical regions in the evaluation of agricultural extension workers on the goal-setting axis, with the averages being close (from 13.9 to 14.1). This closeness is attributed to the fact that the goal-setting process in the Iraqi agricultural extension system is centralized, issued by the general administration and distributed to all extension centers in the governorates. This explains the similarity in the evaluation of workers

regardless of their regions.

3. The axis of policies to be followed

Table (4) shows the results of the one-way analysis of variance, testing the differences between the three agricultural regions in the evaluation of agricultural extension workers of the efficiency of the policies implemented within the agricultural extension system in Iraq:

Table 4: One-way analysis of variance test, to determine the differences between the study regions in the evaluation of the policies implemented within the agricultural extension system in Iraq from the perspective of workers.

Geographic Region	Sample Size	Percentage (%)	Mean Score	Significance Value	Note
Northern Region	23	10.3%	11.9	0.014	Significant differences in favor of the Central Region
Central Region	144	64.4%	14.5	—	—
Southern Region	67	25.3%	12.8	—	—
Total	234	100%	—	—	—

The results of the one-way analysis of variance indicate significant differences at a significance level of 0.05 or less ($p = 0.014$) between the three geographical regions in the assessment of agricultural extension workers of the policy axis implemented. The central region recorded the highest average (14.5) compared to the southern region (12.8) and the northern region (11.9). This superiority is attributed to the fact that the headquarters of the General Authority for Agricultural Extension and Training is located in Baghdad Governorate within the central region. This allows workers in this region to have direct and broader access to the

adopted policies and interact with decision-makers, thus enhancing their awareness of the frameworks of the applied extension policies.

4. Method of Implementation of Extension Programs

Table (5) shows the results of the one-way analysis of variance, to test the differences between the three agricultural regions in the assessment of agricultural extension workers of the method of implementing extension programs within the agricultural extension system in Iraq:

Table 5: One-way analysis of variance test, to determine the differences between the study regions in the assessment of the method of implementing extension programs from the perspective of agricultural extension workers in Iraq.

Geographic Region	Sample Size	Percentage (%)	Mean Score	Significance Value	Note
Northern Region	23	10.3%	9.1	0.008	Significant differences in favor of the Central Region
Central Region	144	61.5%	11.3	—	—
Southern Region	67	28.2%	12.5	—	—
Total	234	100%	—	—	—

The results of the one-way analysis of variance indicate significant differences at a significance level of 0.05 or less ($p = 0.008$) between the three geographical regions in the assessment of agricultural extension workers of the method of implementing extension programs. The highest evaluation averages were in the southern region (12.5), followed by the central region (11.3), and the northern region (9.1). This variation reflects a disparity in the degree of commitment and practical application of program implementation strategies, which may be attributed to differences in the logistical capabilities and administrative and technical support available to each region, in addition to

the disparity in experience among extension teams, leading to a clear variation in the method of program implementation from one region to another.

5- Work Coordination Axis

The results of the one-way analysis of variance, to test the differences between the three agricultural regions in the assessment of agricultural extension workers of the efficiency of work coordination within the agricultural extension system in Iraq, indicate what is shown in Table (6):

Table 6: One-way analysis of variance test to determine the differences between regions in the assessment of agricultural extension workers of the work coordination axis within the agricultural extension system in Iraq

Geographic Region	Sample Size	Percentage (%)	Mean Score	Significance Value	Note
Northern Region	23	10.3%	10.5	0.021	Significant differences in favor of the Central Region
Central Region	144	61.5%	12.8	—	—
Southern Region	67	28.2%	11.4	—	—
Total	234	100%	—	—	—

The results of the one-way analysis of variance indicate significant differences at a significance level of 0.05 or less ($p = 0.021$) between the three geographical regions in the workers' assessment of the work coordination axis. The central region had the highest average (12.8) compared to the southern region (11.4) and the northern region (10.5). This disparity is attributed to the concentration of agricultural institutions, ministries of agriculture, and other relevant institutions in the capital, Baghdad, located within the central region. This contributes to achieving higher

levels of coordination between relevant parties compared to the rest of the regions.

6. Report Writing and Archiving Axis

The results of the one-way analysis of variance, to test the differences between the three agricultural regions in the assessment of agricultural extension workers of the efficiency of the report writing and archiving system, indicate what is shown in Table (7).

Table 7: One-way analysis of variance test to determine the differences between regions in the assessment of agricultural extension workers of the report writing and archiving axis

Geographic Region	Sample Size	Percentage (%)	Mean Score	Significance Value	Note
Northern Region	23	10.3%	10.2	0.163	No significant differences
Central Region	144	61.5%	11.1	—	—
Southern Region	67	28.2%	10.6	—	—
Total	234	100%	—	—	—

The results of the one-way analysis of variance indicate no significant differences at the 0.05 significance level ($p = 0.163$) between the three regions in the workers' evaluation of the report writing and filing axis. The averages were relatively close between the central region (11.1), the southern region (10.6), and the northern region (10.2). This can be explained by the fact that the instructions for organizing and filing reports are issued centrally by the higher authorities in the extension service and are applied

uniformly across all regions, leading to consistent performance in this area.

7. Budget Determination and Obtaining Axis

The results of the one-way analysis of variance, to test the differences between the three agricultural regions in the evaluation of agricultural extension workers on the budget determination and obtaining axis, indicate what is shown in Table (8):

Table 8: One-way analysis of variance test to determine the differences between regions in the evaluation of agricultural extension workers on the budget determination and obtaining axis

Geographic Region	Sample Size	Percentage (%)	Mean Score	Significance Value	Note
Northern Region	23	10.3%	11.8	0.031	Significant differences in favor of the Northern Region
Central Region	144	61.5%	9.6	—	—
Southern Region	67	28.2%	10.2	—	—
Total	234	100%	—	—	—

The results of the one-way analysis of variance indicate significant differences at a significance level of 0.05 or less ($p = 0.031$) between the three regions in the workers' evaluation of the budget setting and obtaining axis. The northern region recorded the highest mean (11.8) compared to the southern region (10.2) and the central region (9.6). This disparity is attributed to the fact that workers in the northern regions possess more experience or deeper knowledge of financial aspects and budget details due to the relatively smaller size of their institutions, which allows them to directly participate in administrative and financial

aspects, compared to other regions characterized by administrative complexity or greater centralization of decision-making.

8. The Selection and Training of Agricultural Extension Workers Axis

The results of the one-way analysis of variance, to test the differences between the three agricultural regions in workers' evaluation of the selection and training axis, indicate what is shown in Table (9):

Table 9: One-way analysis of variance test to determine the differences between regions in the evaluation of agricultural extension workers in the selection and training axis of agricultural extension work.

Geographic Region	Sample Size	Percentage (%)	Mean Score	Significance Value	Note
Northern Region	23	10.3%	10.5	0.026	Significant differences in favor of the Central Region
Central Region	144	61.5%	13.3	—	—
Southern Region	67	28.2%	11.2	—	—
Total	234	100%	—	—	—

The results of the one-way analysis of variance indicate significant differences at a significance level of 0.05 or less ($p = 0.026$) between the three regions in the workers' evaluation of the axis of selecting and training agricultural extension workers. The central region ranked first with a high average evaluation of (13.3), compared to the southern region (11.2) and the northern region (10.5). This superiority can be explained by the fact that the central region houses the headquarters of the General Authority for Agricultural Extension in Baghdad, which provides its workers with greater opportunities to learn about

recruitment systems, training mechanisms, and updated standards required for agricultural extension workers. Furthermore, their proximity to decision-making centers makes them more aware of the standards and procedures adopted for selecting and developing extension workers.

9. Gender Axis

The results of the one-way analysis of variance, which tested the differences between the three agricultural regions in workers' evaluation of the gender axis in the agricultural extension system, indicate what is shown in Table (10):

Table 10: One-way analysis of variance test to determine the differences between regions in the evaluation of agricultural extension workers of the gender axis

Geographic Region	Sample Size	Percentage (%)	Mean Score	Significance Value	Note
Northern Region	23	10.3%	7.2	0.028	Significant differences in favor of the Northern Region
Central Region	144	61.5%	5.6	—	—
Southern Region	67	28.2%	5.3	—	—
Total	234	100%	—	—	—

The results of the one-way analysis of variance indicate significant differences at a significance level of 0.05 or less ($p = 0.028$) between the three regions in the workers' evaluation of the gender axis. The northern region recorded the highest mean (7.2) compared to the central region (5.6) and the southern region (5.3). This difference is attributed to the better representation of women in agricultural extension teams and extension programs dedicated to rural women in the northern region. This reflects effective field efforts and local initiatives to enhance the role of women in this sector. The proximity of the northern region's governorates to the

Kurdistan Region of Iraq, where a more open and supportive culture of women's participation in professional and social life prevails, also contributes to raising the level of women's representation in agricultural extension teams.

10. The Salary and Incentives Axis

The results of the one-way analysis of variance, testing the differences between the three agricultural regions in workers' evaluation of the salary and incentives axis within the agricultural extension system, indicate what is shown in Table (11):

Table 11: One-way analysis of variance test to determine the differences between regions in the evaluation of agricultural extension workers of the salary and incentives axis

Geographic Region	Sample Size	Percentage (%)	Mean Score	Significance Value	Note
Northern Region	23	10.3%	9.6	0.112	No significant differences
Central Region	144	61.5%	8.9	—	—
Southern Region	67	28.2%	8.7	—	—
Total	234	100%	—	—	—

The results of the one-way analysis of variance indicate no significant differences at a significance level of 0.05 or less ($p = 0.112$) between the three regions in workers' evaluation of the salary and incentives axis. The averages were close between the northern region (9.6), the central region (8.9), and the southern region (8.7). This similarity reflects that the salary and incentive system in agricultural extension in Iraq is organized centrally and unified, with similar procedures and mechanisms for distributing and granting incentives regardless of geographic region. This also indicates that extension workers face similar challenges

regarding income levels and motivation, reflecting the need to comprehensively improve general salary and incentive policies to enhance performance and motivate workers in all regions without discrimination.

11. Housing Axis

The results of the one-way analysis of variance, to test the differences between the three agricultural regions in workers' evaluation of the housing axis within the agricultural extension system, indicate what is shown in Table (12):

Table 12: One-way analysis of variance test to determine the differences between regions in agricultural extension workers' evaluation of the housing axis

Geographic Region	Sample Size	Percentage (%)	Mean Score	Significance Value	Note
Northern Region	23	10.3%	7.4	0.031	Significant difference in favor of the Central Region
Central Region	144	61.5%	11.2	—	—
Southern Region	67	28.2%	8.1	—	—
Total	234	100%	—	—	—

The results of the one-way analysis of variance indicate significant differences at a significance level of 0.05 or less ($p = 0.031$) between the three regions in the workers' assessment of the housing axis. The central region recorded the highest average (11.2) compared to the southern region (8.1) and the northern region (7.4). This difference is attributed to the availability of better housing infrastructure in the central region, which includes the capital, Baghdad, and several densely populated governorates. This provides affordable and diverse housing solutions for agricultural extension workers. The central region also boasts greater

support from ministries and local departments, which enhances the stability of extension workers in their areas of work. In contrast, the northern and southern regions face greater challenges due to the lack of housing projects.

12. Transportation Axis

The results of the one-way analysis of variance, to test the differences between the three agricultural regions in workers' assessment of the transportation axis within the agricultural extension system, indicate what is shown in Table (13):

Table 13: One-way analysis of variance test to determine the differences between regions in the assessment of agricultural extension workers of the transportation axis

Geographic Region	Sample Size	Percentage (%)	Mean Score	Significance Value	Note
Northern Region	23	10.3%	8.3	0.027	Significant differences in favor of the Southern Region
Central Region	144	61.5%	8.7	—	—
Southern Region	67	28.2%	11.0	—	—

The results of the one-way analysis of variance indicate significant differences at a significance level of 0.05 or less ($p = 0.027$) between the three regions in the workers' evaluation of the means of transportation axis. The southern region recorded the highest mean (11.0) compared to the central region (8.7) and the northern region (8.3). This disparity is attributed to the smaller size of the governorates in the southern region compared to the central and northern governorates, which makes transportation and logistics easier and less complex for extension workers. The small size of the governorates also allows for better planning and

more efficient distribution of transportation, which positively impacts extension workers' performance and the continuity of their communication with farmers.

13. Agricultural Extension Worker Mobility Axis

The results of the one-way analysis of variance, which tested the differences between the three agricultural regions in workers' evaluation of the extension worker mobility axis within the agricultural extension system, indicate the following:

Table 14: One-way analysis of variance test to determine the differences between regions in the evaluation of extension workers in the extension worker mobility axis

Geographic Region	Sample Size	Percentage (%)	Mean Score	Significance Value	Note
Northern Region	23	10.3%	8.5	0.124	No significant differences
Central Region	144	61.5%	9.1	—	—
Southern Region	67	28.2%	8.8	—	—
Total	234	100%	—	—	—

The results of the one-way analysis of variance indicate no significant differences at a significance level of 0.05 or less ($p = 0.124$) between the three regions in the workers' evaluation of the agricultural extension workers' mobility axis. The averages ranged between 8.5 in the northern region, 9.1 in the central region, and 8.8 in the southern region. This similarity reflects the absence of fundamental differences in the mechanisms and plans for financial or logistical movements of agricultural extension workers between the regions. This is perhaps due to the existence of

unified central regulations and instructions for these movements within the Iraqi agricultural extension system.

14. The axis of developing, monitoring, and evaluating extension programs

The results of the one-way analysis of variance, to test the differences between the three agricultural regions in the workers' evaluation of the axis of developing, monitoring, and evaluating extension programs within the agricultural extension system, indicate what is shown in Table (15):

Table 15: One-way analysis of variance test to determine the differences between regions in the evaluation of agricultural extension workers of the axis of developing, monitoring, and evaluating extension programs

Geographic Region	Sample Size	Percentage (%)	Mean Score	Significance Value	Note
Northern Region	23	10.3%	9.1	0.038	Significant differences in favor of the Central Region
Central Region	144	61.5%	11.6	—	—
Southern Region	67	28.2%	10.5	—	—
Total	234	100%	—	—	—

The results of the one-way analysis of variance indicate significant differences at a significance level of 0.05 or less ($p = 0.038$) between the three regions in the workers' assessment of the axis of developing, monitoring, and evaluating extension programs. The central region recorded the highest average (11.6), compared to the southern region (10.5) and the northern region (9.1). This disparity is attributed to the concentration of agricultural extension institutions and administrative bodies in the central region, which facilitates the process of continuous monitoring and evaluation of programs, in addition to the availability of

sufficient resources and expertise that better support program development in this region compared to other regions.

15. The axis of relations with institutions related to agricultural work

The results of the one-way analysis of variance, to test the differences between the three agricultural regions in workers' assessment of the axis of relations with institutions related to agricultural work within the agricultural extension system, indicate what is shown in Table (16):

Table 16: One-way analysis of variance test to determine the differences between regions in workers' assessment of the axis of relations with institutions related to agricultural work

Geographic Region	Sample Size	Percentage (%)	Mean Score	Significance Value	Note
Northern Region	23	10.3%	5.9	0.042	Significant difference in favor of the Central Region
Central Region	144	61.5%	7.4	—	—
Southern Region	67	28.2%	6.5	—	—
Total	234	100%	—	—	—

The results of the one-way analysis of variance indicate significant differences at a significance level of 0.05 or less ($p = 0.042$) between the three regions in the workers' assessment of the axis of relations with institutions related to agricultural work. The central region recorded the highest average (7.4), compared to the southern region (6.5) and the northern region (5.9). This disparity is due to the concentration of various agricultural institutions and bodies in the central region, including ministries, research bodies, universities, and organizations. This facilitates more effective and organized relationships and partnerships with

the agricultural extension system, in addition to the ongoing support and effective cooperation that enhances extension performance in that region compared to other regions.

16. The Target Audience of Extension Service

The results of the one-way analysis of variance, to test the differences between the three agricultural regions in workers' assessment of the target audience axis of extension service within the agricultural extension system, indicate what is shown in Table (17):

Table 17: One-way analysis of variance test to determine the differences between the study regions in workers' assessment of the target audience axis of extension service

Geographic Region	Sample Size	Percentage (%)	Mean Score	Significance Value	Note
Northern Region	23	10.3%	7.2	0.114	No significant differences
Central Region	144	61.5%	7.5	—	—
Southern Region	67	28.2%	6.9	—	—
Total	234	100%	—	—	—

The results of a one-way analysis of variance indicate no significant differences at a significance level of 0.05 or less ($p = 0.114$) between the three regions in the workers' assessment of the target audience axis of the extension service. The averages ranged between 6.9 and 7.5. This homogeneity in assessment is attributed to the fact that the process of implementing extension activities is carried out through unified directives and plans issued by the headquarters of the General Authority for Agricultural Extension and distributed to all centers in the governorates, ensuring similar planning and implementation mechanisms across all regions without significant differences.

Conclusion

1. Agricultural extension workers possess good communication skills and are committed to carrying out their extension duties despite limited resources.
2. Some organizational aspects of Iraqi agricultural extension need updating to clarify policies and improve performance efficiency.
3. The availability of housing, transportation, incentives, and salaries remains inadequate and affects the stability of agricultural extension workers in their work locations.
4. Some regions, such as the Central Region, have demonstrated better performance in program

implementation and institutional coordination and can be adopted as a model for developing extension in other regions.

Recommendations

Based on the results of this study and to improve the efficiency of the agricultural extension system in Iraq, the researcher recommends the following:

1. The central government should open the door to appointments for qualified agricultural extension workers according to fair professional standards, taking into account specialization and geographical distribution to compensate for the severe shortage of personnel.
2. The study recommends that local governments allocate suitable housing for agricultural extension workers in their areas of work to ensure job stability and improve the level of service provided to farmers.
3. The study recommends increased coordination between the General Authority for Extension and various supporting agencies, whether governmental or civil society organizations, to activate the role of extension workers to develop the agricultural sector and improve the marketing of agricultural produce.
4. The study recommends establishing a unified monitoring and evaluation system across Iraq to ensure learning from successful experiences in certain regions and enhance the integration of the performance of all extension units.

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