A SUGGESTED CONCEPTION TO IMPROVE SOME ASPECTS OF AGRICULTURAL EXTENSION WORK IN THE GOVERNORATES OF THE SOUTHERN REGION OF IRAQ

Hadeer M. Kadim and Mithal Abd. Salman
Department of Extension and Transfer of Agricultural Technologies, College of Agricultural Engineering Sciences, University of Baghdad, Iraq. E-mail: fakkr94@gamil.com

Abstract
The goal of the research is to get to know the present state of agricultural extension and make suggestions to improve the work of agricultural extension which include the broadening the goals of agricultural extension objectives (including food security, natural resource management), the broadening the range of agricultural extension and setting the agricultural extension policy.

The research community involved the (5) governorates of the southern region of Iraq. A random sample of 40% of 2 governorates (Dhi Qar, Diwaniyah) has been taken for study but due to little number of workers in the governorates covered in research all society has been taken which was made of (100) respondents. A questionnaire was prepared to collect data from the respondents. It consisted of a five-point scale that included (18) items divided into (2) topics, (11) items to make food security and (7) items to natural resource management. To analyze and show the results the Statistical Analysis Program SPSS and manual analysis have been used. The research used repetitions, percentages, arithmetic average, standard deviation, percent weight, weighted average, equation of al-Faker and al-Tabbagh. And the following results have been reached to:

The majority of respondents agreed on the proposed scenario to improve the agricultural extension which consists of broadening the agricultural extension objectives (food security, natural resource management). There are discrepancies in the points and items of the agriculture extension work in the governorates of the southern region of Iraq, but these discrepancies were simple, indicating that most of them are important. Make food security using environmentally friendly agricultural technologies and achieving Sustainable agricultural development

Key words: Agricultural extension, research objective, random sample, questionnaire.

Introduction
The present conditions of democracy and privatization, the appearance of sustainable development concepts as well as the big revolution in Information and communication technology which need to provide huge amounts of information that can be obtained easily at any time (Abdel-Maqsoud, 2016) affected the work of the institutions, including the guidance institution, which has suffered from several problems referred to by many studies including the study of the Arab Organization for Agricultural Development 124 (2009), the study of Abu Sheikha (2011) and the study of Nassif (2004), who pointed out the weakness and absence of effective management in the extension work and its integration into service and agricultural administrations and the absence of a mechanism for extension work in addition to the lack of organization integration and the conflict and duplication of duties and services provided to the farmers. Zahran (2006) pointed out that the agricultural extension system suffers from several problems, including:

1. Lack of cooperation and coordination between the objective specialists and agricultural guides in the villages.
2. Lack of strong links between farmers, researchers and extension workers.
3. The absence of stable policies for the preparation and rehabilitation of agricultural extension workers.
as well as their weak performance efficiency.

4. Inefficiency of the base of extension programs for men and women and rural youth and the non-diversity of activities.

5. Lack of material and human resources and the wide range of supervision.

6. Lack of the necessary factors for the efficiency of agricultural training programs.

7. The guidance activities and programs lack objective evaluation.

Kora and Kassem (2010) indicated the existence of double supervision at the level of governorates, centers and villages of the directorates of agriculture and the agricultural departments and units in the governorates, centers and villages and their subordination to the Central Administration for Agricultural Extension in terms of technical aspects. This represents a contrast or contradiction in the role of agricultural extension workers at regional and local level. In the same context, Qeshta (2012) noted that the current impact in most developing countries, including Iraq, is below the required level which represent a weak point in achieving agricultural development and rural development and can now be described as the absent present. Al Daini (2004), Al-Nuaimi (2001), Al Kashash (2002), Nageeb (2008), Kita (2009) indicated that there is a weakness in the performance of agricultural extension workers in the developmental, scientific and information fields. Al Jaf (2001), Al Aboudi (2002), Al-Qura Ghuli (2013), Al-Mahdawi (2014) and Al-Omari (2014) indicated a weakness in the farmer’s adoption of agricultural technologies, practices and scientific recommendations related to the agricultural domain. Based on the above, the above studies indicate that the extension system in Iraq suffers from many shortcomings which necessitate reviewing the message, it presents to the farmer’s population. It is not limited to increasing the plant and animal production and to make technological progress in the methods and methods of agriculture, but its message goes beyond that scope and extends to involve creating a social and economic renaissance by exploiting all available rural opportunities and natural resources potentials. Accordingly, the extension of the agricultural extension gets a new dimension which requires that the tasks and responsibilities of its employees be more participatory and broader. The extension service provided to the farmers should be comprehensive in content and scope beyond the transfer of agricultural technology and dissemination of agricultural technology and new agricultural practices to farmers that are insufficient and that all act as mediators to transfer knowledge and facilitate the exchange of knowledge-based interactions among researchers, extension workers and agricultural producers (Shalaby, 2013). According to this, those involved in agricultural extension need to improve and update the agricultural extension system in Iraq, including the governorates of the southern region, which is considered a national task supported by the government and led by the Ministry of Agriculture, the responsibilities of which is shared among all relevant institutions and parties by taking the necessary and appropriate measures for the sake of making agricultural extension effective and of high, increasing and permanent for the compared to the northern and central governorates of Iraq.

Farmers and all rural society members to develop their work and production while maintaining at same time the natural resources (Al-Tai, 2014). Thus, this research deals with a basic topic and that is the improvement of the work of agricultural extension by answering the following questions:

1- What is the proposed scenario for improving some aspects of agricultural extension work in the governorates of the southern region of Iraq?

Research objective

Suggesting a conception to improve the work of agricultural extension in the governorates of the southern region of Iraq:

1. Extending the objectives of agricultural extension
   a. Achieving food security
   b. the management of natural resources

Statistical hypotheses

The majority of respondents agreed on the proposed scenario to improve the agricultural extension in the governorates of the southern region from Iraq.

Materials and Methods

Research methodology

In the light of the research questions that were sought to answer, the descriptive approach was used to describe the phenomenon accurately, it also identifies and predicts the relationship between the variables that affect the phenomenon by obtaining realistic and accurate information on which to formulate the results, thus it concentrates on describing the phenomenon to be studied which is represented by the improvement of agricultural extension in the governorates of the southern region of Iraq.
A Suggested Conception to Improve some Aspects of Agricultural Extension Work

Research area

The governorates of the southern region of Iraq were selected as a zone for conducting the current research, encouraged by the number of workers in the field of agricultural extension which is larger.

The research community and sample

The research community included:

1-3- The governorates of the southern region of Iraq (5) Governorates were selected as a proportionate random sample from the provinces of the southern region of Iraq by 40%, the two governorates of Diwaniyah and Dhi Qar.

2-3-Agricultural extension workers distributed in the governorates of the southern region of Iraq, which included the directorates of agriculture, extension centers and farms of 100 respondents. Due to the lack of numbers of respondents, the society has been selected.

Research tools and design stages

Based on the objectives of the research, the questionnaire was used as a tool to collect data from the respondents. It is one of the most common methods used in collecting data because it has good characteristics that distinguish it from other methods. It is designed in its primary form according to the following sources:

a. See the literature, articles, studies and foreign and Arab research.

b. Opinions of experts and specialists in the field of agricultural extension.

c. Use of the Internet.

d. Field visits and personal interviews with a number of employees. A number of field visits were conducted to the Diwaniyah and Dhi Qar governorates.

Data collection

A questionnaire was used to collect data from the respondents and their number is 100, their answers were recorded for the period between 2/12/2017 and 15/1/2018.

Statistical methods

After collecting the data needed for the research, coding and tabulating them, they were analyzed using manual analysis as well as using the statistical SPSS program.

Results and Discussion

Broadening the goals of agricultural extension

A. Achieving food security

Recognition of respondents’ approval on the items of food security: The results showed that the farmers give great attention to this aspect as shown in their responses on the items on food security, which got a weighted average between (4.36- 3.74) degree and a percentage weight between (287-74.8%). These values are high to some extent as shown in the table 1.

While the item preparation of —— programs.

It is clear from the table 1 that most respondents confirmed the item (Transferring and distributing the appropriate agricultural technologies to farmers to achieve food security) as it obtained the first rank of importance or respondents’ approval achieving a weighted average of 36.4 degrees and a percent weight of 2.87, which is higher than weighted averages of other items. The reason for this is that the transfer of appropriate agricultural technology for the farmers and their dissemination is insufficient but requires those working agricultural extension to facilitate the exchange of useful knowledge between agricultural researchers and producing trainers and to increase interaction between them to achieve food security to reduce crop losses by modification of farmers’ production behavior ranked last in terms of level of importance or respondents’ approval as they achieved a compromise weighted average of 3.74 degrees and percentage weight of 74.8% which is lower than the weighted averages for other items.

The reason is that the reduction of the rate of losses is due to the disruption of agricultural operations and dates of plantations and the unsuitable varieties and other agricultural operations that adversely affect the farmer’s production behavior.

B. Natural Resource Management identifying the respondents’ agreement on items of natural resource management

The results of the study showed that the respondents give great attention to this aspect, and this is reinforced by their answers on the items of natural resource management which are 7 items and obtained a weighted average between (4.1-3.71) and a percentage weight between (82-74.2) these values are fairly high, as shown in table 2.

It is clear from table 2 that most respondents emphasized on the item (more efficient agricultural technologies should be used by farmers) and this is reinforced by getting the first place in terms of the level of importance or approval of the respondents, having achieved a weighted average of 4.1 degree and a percentage weight between (82-74.2) these values are fairly high, as shown in table 2.

It is clear from table 2 that most respondents emphasized on the item (more efficient agricultural technologies should be used by farmers) and this is reinforced by getting the first place in terms of the level of importance or approval of the respondents, having achieved a weighted average of 4.1 degree and a percentage weight (82), which is higher than the weighted averages for the other item the reason for this is that agricultural extension does not deal directly with new agricultural technologies unless it is valid for normal
<table>
<thead>
<tr>
<th>Rank</th>
<th>No. in the form</th>
<th>Items</th>
<th>Agree</th>
<th>Weighted average</th>
<th>Percentage weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Transferring and distributing the appropriate agricultural technologies to farmers to achieve food security</td>
<td>56 25 18 1 0</td>
<td>4.36</td>
<td>87.2</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>Reconsideration of the qualifications and capabilities of the agricultural guide Scientifically and technically Compatible with the modern contemporary concepts</td>
<td>41 34 20 3 2</td>
<td>4.09</td>
<td>81.8</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>Improving the research and agricultural extension systems to achieve food security</td>
<td>41 27 24 7 1</td>
<td>4</td>
<td>80</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>Integrating teaching aids related to population and environment in the agricultural extension programs</td>
<td>44 22 26 4 4</td>
<td>3.98</td>
<td>79.6</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>Following a more balanced strategy in marketing operations</td>
<td>32 42 16 6 4</td>
<td>3.92</td>
<td>78.4</td>
</tr>
<tr>
<td>9</td>
<td>6</td>
<td>Training the agricultural extension staff in all levels on topics related to the links between farm and market, the type of support that should be ensured for producers and environmental sustainability</td>
<td>39 27 22 6 6</td>
<td>3.87</td>
<td>77.4</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>Employing the media to adjust directions the farmers’ reactions to accept the new innovations and orienting them towards food security</td>
<td>31 31 33 3 2</td>
<td>3.86</td>
<td>77.2</td>
</tr>
<tr>
<td>8</td>
<td>11</td>
<td>Raising the farmers ‘awareness to change their direction toward some daily agricultural practices that affect negatively on environment and lead to pollution</td>
<td>32 37 18 6 7</td>
<td>3.81</td>
<td>76.2</td>
</tr>
<tr>
<td>9.5</td>
<td>3</td>
<td>Maintaining the available natural resources identified and associated with the continuous achievement of sustainable food security</td>
<td>34 31 19 9 7</td>
<td>3.76</td>
<td>75.2</td>
</tr>
<tr>
<td>9.5</td>
<td>10</td>
<td>Propagation of the of agricultural manufacturing and small agricultural projects among rural youth</td>
<td>34 31 19 9 7</td>
<td>3.76</td>
<td>75.2</td>
</tr>
<tr>
<td>11</td>
<td>5</td>
<td>Preparation of extensional programs to reduce crop losses by modification of the farmers’ production behavior</td>
<td>32 31 23 7 7</td>
<td>3.74</td>
<td>74.4</td>
</tr>
</tbody>
</table>
A Suggested Conception to Improve Some Aspects of Agricultural Extension Work conditions to be applied on a large scale. The item providing incentives and materials for to adopt sustainable management practices in natural resources ranked last in terms of level of importance or approval of respondents with a weighted mean of 3.71 degrees and a percentage weight of 74.2, which is less than the other weighted averages due to the use of the styles of incentives, recognition and competition to encourage farmer to apply new practices to manage natural resources efficiently.

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Table 2: Distribution of respondents according to their agreement on the items of natural resources management.

<table>
<thead>
<tr>
<th>Rank</th>
<th>No. in the formation</th>
<th>Items</th>
<th>Very strongly agree</th>
<th>Strongly agree</th>
<th>Moderately agree</th>
<th>Slightly agree</th>
<th>Very slightly agree</th>
<th>Weighted average</th>
<th>Percentage weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>More efficient agricultural technologies should be used by farmers</td>
<td>48</td>
<td>34</td>
<td>17</td>
<td>2</td>
<td>4</td>
<td>4.1</td>
<td>82</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>Sustainable agricultural practices for natural resources should be used at the lowest cost</td>
<td>38</td>
<td>32</td>
<td>22</td>
<td>6</td>
<td>2</td>
<td>3.98</td>
<td>79.6</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Providing financial allocations to teach farmers how to manage natural resources and keep them from deterioration</td>
<td>42</td>
<td>21</td>
<td>29</td>
<td>5</td>
<td>3</td>
<td>3.94</td>
<td>78.8</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>Farmers in rural areas should be trained on the management of natural resources and organizing them</td>
<td>36</td>
<td>37</td>
<td>15</td>
<td>8</td>
<td>4</td>
<td>3.93</td>
<td>78.6</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>Providing the farmers with environment friendly technologies</td>
<td>35</td>
<td>28</td>
<td>28</td>
<td>8</td>
<td>1</td>
<td>3.88</td>
<td>77.6</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>Determining the appropriate guidance systems for the conditions of the farmers</td>
<td>41</td>
<td>24</td>
<td>18</td>
<td>13</td>
<td>4</td>
<td>3.85</td>
<td>77</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
<td>Providing incentives and materials for to adopt sustainable management practices in natural resources</td>
<td>40</td>
<td>27</td>
<td>12</td>
<td>6</td>
<td>15</td>
<td>3.71</td>
<td>74.2</td>
</tr>
</tbody>
</table>
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