



Obstacles in the Practice of Change Leadership in Agricultural Extension Organizations to Achieve Sustainable Development

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Abstract

This research aimed to identify the obstacles facing the practice of change leadership in agricultural extension organizations to achieve sustainable development in Iraq. The research community included 15 provinces in Iraq, except for the Kurdistan region. A random 50% sample was taken in 8 provinces. A proportional stratified sample was taken from workers in agricultural extension organizations within the Agricultural Extension and Training Department and the Directorates of Agriculture in the relevant governorates. The sample involved 721 workers of which 251 or 34.8% were selected. A questionnaire comprising 47 paragraphs covering five topics was administered for data collection from the workers. The findings showed that economic issues led in terms of importance with a weighted average of 4.06 degrees and a percentage weight of 81.2%, while social and behavioral obstacles were the least important at 3.65 degrees and 73%. It can be concluded that the general orientation toward economic constraints falls within the high range. This indicates that participants recognize the importance of economic resources as a potential area for change, as their diverse activities offer significant opportunities to improve income and enhance economic prospects.

Keywords: Obstacles, Change leadership, Agricultural extension organizations, Dimensions of sustainable development.

المعوقات التي تواجه ممارسة قيادة التغيير في التنظيمات الارشادية الزراعية في ضوء ابعاد التنمية المستدامة / العراق

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الخلاصة

يهدف البحث الحالي إلى التعرف على المعوقات التي تواجه ممارسة قيادة التغيير في التنظيمات الارشادية الزراعية في ضوء ابعاد التنمية المستدامة / العراق. شمل مجتمع البحث محافظات العراق عدا إقليم كردستان والبالغ عددها 15 محافظة، اخذت عينة عشوائية بنسبة 50% وبواقع 8 محافظات، وتم اخذ عينة طبقية تتناسبية من العاملين بالتنظيمات الارشادية الزراعية ضمن دائرة الارشاد والتدريب الزراعي ومديريات الزراعة في محافظات عينة البحث، والبالغ عددهم 721 مبحوثاً بنسبة 34.8% وبواقع 251 مبحوث، تم إعداد استبانة لجمع البيانات من العاملين بالتنظيمات الارشادية الزراعية تكونت من 47 فقرة موزعة على خمسة محاور، وقد تم التوصل إلى النتائج الآتية: إن محور المعوقات الاقتصادية احتل المرتبة الأولى نظراً لأهميته باتفاق المبحوثين وبوسط مرجح قدره 4.06 درجة وبوزن مئوي بلغ 81.2% بينما احتل كل من محور المعوقات الاجتماعية والمعوقات السلوكية بالمرتبة الأخيرة من حيث الأهمية او موافقة المبحوثين عليها إذ حققت وسطاً مرجحاً قدره 3.65 درجة وبوزن مئوي بلغ 7.3%. نستنتج من الدراسة أن التوجه العام نحو المعوقات الاقتصادية يقع ضمن النطاق المرتفع. وهذا يدل على إدراك المبحوثين لأهمية الموارد الاقتصادية ك مجال محتمل للتغيير، حيث توفر أنشطتهم المتنوعة فرصاً كبيرة لتحسين الدخل وتعزيز الأفاق الاقتصادية.

كلمات مفتاحية: المعوقات، قيادة التغيير، التنظيمات الارشادية الزراعية، ابعاد التنمية المستدامة.

Introduction

Change has become an urgent necessity imposed by the requirements of the modern era. Living in a world of rapidly changing events require determination and diligence to keep pace with these developments and changes and to adapt to them to keep pace with this world (3). As sustainable development is one of the main challenges facing developed and developing countries, including Iraq, this is especially in light of the high global poverty, inequality, climate change, and financial and economic crises (5). Achieving sustainable agricultural development requires the attention of agricultural extension organizations which play a fundamental role in achieving sustainable development by focusing on economic, social, and environmental aspects (10).

Agricultural extension organizations aiming to achieve their goals of sustainable development and bring about changes in rural society (13) need leaders who possess

diverse change skills. This will facilitate the implementation of the objectives by providing a diverse culture that accommodates all its requirements and makes those working with them integrate into the activities and programs of agricultural extension organizations in a cooperative and participatory manner (14). Agricultural extension organizations, in particular, face many challenges and rapid changes, which require them to adjust their systems, procedures, and leadership (2).

The proper scientific employment of human resources and influences face complex dynamic environments affected by many variables and transformations in the internal conditions of organizations and external environmental data, this requires the organizations to continuously work to improve their performance level and develop their capabilities (16). It emphasizes the importance of integration and continuity of the process of performance of change leaders (9).

It is from there that the role of effective leadership emerges to meet the challenges facing these organizations, whether internal or external, to achieve the desired goals (4). As they are the ones charged with implementing the tasks and duties to achieve organizational change. They are the drivers and are exposed to pressures in their advisory work which if not managed effectively will negatively affect the performance of their organizations to change and promote agricultural development (11).

Despite the inevitability and importance of this change, it is faced with resistance. Such resistance is often viewed as an impediment to organizations, including agricultural advisory organizations, and requires investigation of the reasons and motives for this resistance and dealing with them using appropriate and effective methods and strategies for achieving positive change (15).

Other obstacles faced by agricultural extension organizations include weak organizational structure, insufficient delegation of authority, poor use of communication technology, and weak linkages with relevant authorities which affect their alignment with the sustainable development goals (12). Such organizations are concerned with keeping pace with ongoing changes and developments in order to provide the best services to their employees (8). This role increases their commitment to embracing change processes within their organizations and requires a qualified workforce capable of handling this change (1). It is common for employees in agricultural extension organizations to be distressed by the constant change within them, which can lead to a natural reaction of resistance to change. Therefore, a culture of participation in decision-making and achieving desired goals must be fostered (6).

Understanding the dimensions of change and its consequences in agricultural extension organizations, both internally and externally, is crucial as well as addressing the pressure, low morale, and psychological stress triggered during the change process, which negatively impacts performance and creates much job dissatisfaction. This leads to poor results, an unhealthy work environment, weak administrative bodies, and other dilemmas that undermine the work of agricultural extension organizations (7). Hence, the importance of and urgent need for change leadership in the current era, characterized by vitality, development, and continuous change.

This important topic is addressed in this research through the following question:

What are the obstacles facing the practice of change leadership in agricultural extension organizations in light of the dimensions of sustainable development in Iraq?

Research Objectives: The objective of this research was to identify the challenges encountered in the practice of change leadership in agricultural extension organizations in promoting sustainable development in Iraq.

Materials and Methods

This research employed the descriptive method for investigating the phenomenon that is the subject of the study.

Research population and sample:

Research population:

- A. Fifteen provinces in Iraq, except for the Kurdistan region, namely Nineveh, Kirkuk, Salah al-Din, Diyala, Baghdad, Anbar, Babylon, Najaf, Karbala, Wasit, Diwaniyah, Muthanna, Dhi Qar, Maysan, and Basra.
- B. Workers in agricultural extension organizations within the Department of Agricultural Extension and Training, extension centers, and farms affiliated with it, and extension departments and units in the agricultural divisions affiliated with the Directorate of Agriculture in the provinces.

Research sample:

- A. Random samples were taken from the provinces of Iraq at a rate of 50% from 8 provinces, i.e., Baghdad, Kirkuk, Salah al-Din, Anbar, Karbala, Najaf, Dhi Qar, and Muthanna.
- B. Stephen Thompson's equation (Thompson, 2012: 59-60) was used to extract a proportional stratified random sample of the research community numbering 251 respondents, constituting 34.8% of the total 721. The respondents were distributed according to the provinces of the research sample.

Data collection: The questionnaire is a valuable tool for obtaining objective data, realistic insights, and information that support the research objectives. A specially designed questionnaire was developed for this research and reviewed by a committee of experts from the Department of Agricultural Extension and Technology Transfer at the University of Baghdad to verify its form and content validity. The questionnaire was pretested on 30 respondents who were not part of the research sample on 22/4/2024 in Wasit Governorate. Reliability was measured using the split-half method using the Pearson equation, which reached a value of 0.74. Reliability was obtained at 0.93, thus demonstrating a high level of reliability and validity. The Spearman-Brown equation was used to correct the scale as a whole. Thus, the questionnaire demonstrated high levels of validity and reliability.

The final questionnaire consisted of 47 paragraphs under five topics, namely 10 on administrative and organizational obstacles, 11 on technical and material obstacles, 8 each on behavioral and social obstacles, and 10 on economic obstacles. Data were collected from the respondents from May 20 to June 23 2024 and analyzed using the Statistical Analysis Program for the Social Sciences (SPSS). The study used several statistical methods such as range, frequencies, percentages, arithmetic mean, t-test, weighted average, weighted percentage, Pearson's simple correlation coefficient, and Spearman's correlation coefficient.

Results and Discussion

The results of the analysis are presented in Table 1. As seen, most respondents agreed on the obstacles related to the practice of change leadership in agricultural extension organizations to achieve sustainable development dimensions. This is shown in the value of the general weighted mean of 3.8 degrees and a percentage weight of 76%. Despite this, there is a convergence in the estimates of the weighted means for the topics set, with values ranging between 4.06 - 3.65 degrees, which is higher than the hypothetical mean of 3 degrees and a percentage weight between 81.2 - 73%. Economic obstacles occupied the first place in importance or respondents' approval, achieving a weighted mean of 4.06 degrees and a percentage weight of 81.2%. This may be attributed to the limited economic resources for satisfying all the needs of the individuals in the rural community for achieving a better life.

Table 1: Distribution of respondents on the challenges to change leadership.

Importance	Form Sequence	Obstacles	Weighted Average	Weight Percentage
1	5	Economic	4.06	81.2
2	1	Administrative and Organizational	3.83	76.6
3	2	Technical and Material	3.81	76.2
4.5	4	Social	3.65	73
4.5	3	Behavioral	3.65	73
Average			3.8	76

Social and behavioral obstacles were lowest in importance or respondents' approval, achieving a weighted average of 3.65 degrees and a percentage weight of 73%. This may be attributed to the control of fear and terror over the leaders of agricultural extension organizations in the failure of the change process and the delay of its results, which plants doubts in workers that the change was unnecessary to improve their economic conditions. Each topic's items on the obstacles to change leadership practices in agricultural extension organizations are discussed below.

Administrative and organizational obstacles: The research results show that the responses on the 10 administrative and organizational obstacles to change leadership in agricultural extension organizations had a general weighted average of 3.83 degrees, which is greater than the hypothetical 3-degree average, and a total percentage weight of 76.62%, as shown in Table 2.

Table 2: Distribution of respondents on administrative and organizational obstacles.

Importance	Form Sequence	Paragraphs	Weighted Average	Weight Percentage
1	10	Lack of sufficient material resources to bring about change aimed at transforming traditional into digital guidance in achieving sustainable development goals	4.06	81.2
2	1	Agricultural guidance organizations use the traditional method to implement the dimensions of sustainable development	3.93	78.6
3	8	The failure of the leadership of the guidance organizations to take administrative measures before making a change in energy consumption and ensuring the sustainability of agricultural resources	3.87	77.4
5	6	Restrictions on the powers granted by senior management to make changes in behavioral patterns that support the adoption of agricultural practices for preserving the sustainability of natural resources	3.86	77.2
5	7	The many administrative burdens and work pressures endured by leaders of agricultural guidance organizations are obstacles to changing technologies that preserve cleaner production functions	3.86	77.2
5	9	The failure of the guidance organizations to adopt modern methods to preserve human resources and enhance their role in bringing about sustainable development for the rural community	3.86	77.2
7	5	The weakness in equipping leaders of agricultural guidance organizations with the skills necessary to conduct strategic planning that supports change in the province on the sustainability of agricultural lands	3.82	76.4
8	3	Fear of making a change in the work of agricultural guidance due to the lack of clarity of its results	3.70	74
9	4	The resistance of agricultural guidance workers to the transformation of traditional into digital guidance due to the lack of accurate information about the results and goals of this transformation	3.68	73.6
10	2	Lack of conviction among the guidance leaders in spreading the culture of change among the rural community groups	3.67	73.4
Overall average			3.83	76.62

It is clear that most respondents agreed on the 10 administrative and organizational obstacles facing the leaderships of agricultural extension organizations to achieve sustainable development. This is reinforced by the value of the weighted averages that ranged between 4.06 - 3.67 degrees, which is higher than the hypothetical average of 3 degrees, with a percentage weight of between 81.2 - 73.4%. Despite this, the item on lack of sufficient material resources to induce change from traditional to digital

extension for attaining sustainable development goals was highest in terms of importance to respondents, achieving a weighted average of 4.06 degrees and a percentage weight of 81.2%. This may be attributed to the lack of sufficient infrastructure in the organizations to transform traditional agricultural extension into digital extension for achieving sustainable development goals.

In contrast, the lack of conviction of guidance leaders in spreading the culture of change among segments of rural society was lowest in importance or degree of approval of the respondents, at a weighted average of 3.67 degree and a percentage weight of 73.4%. This may be attributed to the respondents' belief that spreading the culture of change in the guidance organization leads to problems in the performance of guidance work, due to workers being used to old practices.

Technical and material obstacles: The results showed that responses to the 11 technical and material obstacles to change in the agricultural extension organization leadership obtained a total weighted average of 3.81 degrees, which is greater than the hypothetical average of 3 degrees, and a total percentage weight of 76.29% (Table 3).

Table 3: Distribution of respondents on the technical and material obstacles item.

Importance	Form Sequence	Paragraphs	Weighted Average	Weight Percentage
1	3	Lack of attractive and motivating infrastructure to strengthen extension organizations to achieve social development in the rural community	3.94	78.8
2.5	7	Lack of developing advanced programs to protect natural resources from all sources of agricultural production pollution	3.90	78
2.5	8	Weakness in predicting future environmental problems facing the sustainability of natural resources and developing scientific solutions for them	3.90	78
4	6	Lack of local community contribution to supporting and participating in activities and programs that maintain the sustainability of environmental resources	3.86	77.2
5	4	Deficiency in linking the goals of change and the goals to be achieved in the rural community and the goals of sustainable development	3.83	76.6
6.5	5	Lack of accurate information on the goals and results of change that support the use of cleaner production	3.81	76.2
6.5	2	Deficiency in using modern technologies that help build databases that contribute to supporting the sustainable development of the rural community	3.81	76.2
8	9	Lack of effective participation by leaders of extension organizations to make decisions that enhance adequate protection of biological resources	3.80	76
9	1	Lack of interest of change leaders in extension organizations to bring about change in training program plans that enable workers to strive to achieve sustainable development goals	3.77	75.4
10	11	The weak ability of extension organization leaders to keep pace with technical developments that help livestock increase their production	3.74	74.8
11	10	Lack of rural community contribution to establishing extension activities and programs that support the achievement of food security	3.60	72
Overall average			3.81	76.29

As seen in the table, most respondents agreed on the 11 obstacles facing the organizational leadership in achieving sustainable development. This is evidenced by the weighted average values of between 3.94 - 3.60 degrees, higher than the hypothetical average of 3 degrees, and a percentage weight of between 72-78.8%. Despite this, lack of appropriate infrastructure to enhance extension organizations for social development in the rural community led in importance or the level of approval

of the respondents, achieving a weighted average of 3.94 degrees and a percentage weight of 78.8%. This may be because extension organizations consider infrastructure availability a vital matter that reflects the challenges facing rural communities to achieve sustainable social development.

In contrast, lack of contribution of the rural community in establishing extension activities and programs for the achievement of food security was least important or the lowest level of approval of respondents, achieving a weighted average of 3.60 degrees and a percentage weight of 72%. This may be due to their belief that establishing extension activities and programs is necessary to encourage members of the rural community to adopt new methods and agricultural techniques for achieving food security.

Behavioral obstacles: Responses to the 8 behavioral obstacles facing change leadership in agricultural extension organizations had a general weighted average of 3.65 degrees, which is greater than the hypothetical average of 3 degrees, and a total percentage weight of 73.12% (Table 4).

Table 4: Distribution of respondents on the behavioral obstacles item.

Importance	Form Sequence	Paragraphs	Weighted Average	Weight Percentage
1	5	Some change topics conflict with the culture of workers to achieve sustainable agricultural security	3.73	74.6
2	1	Neglect of change leaders in extension organizations Reactions to the transition to using renewable alternatives to achieve sustainable development goals	3.71	74.2
3	7	Fear of change leaders in extension organizations demanding workers to develop new behavioral patterns in line with the transition to sustainable farm systems	3.70	74
4	6	Fear of change leaders in extension organizations doubting the ability of workers to adhere to farm sustainability quality standards.	3.68	73.6
5	2	The rush of change leaders in extension organizations to know the results of change to transition to sustainable agricultural systems	3.66	73.2
6	8	Lack of knowledge of change leaders in extension organizations about the nature, objectives, and scope of change to achieve food security	3.62	72.4
7	3	Weakness of change leaders in extension organizations in adopting practices that support the sustainability of environmental resources.	3.59	71.8
8	4	Lack of confidence of workers in the motives of the leadership of agricultural extension organizations to transition to sustainable agricultural systems	3.56	71.2
Overall average			3.65	73.12

As seen, the majority of respondents agreed on the existence of the 8 behavioral obstacles facing change leadership in agricultural extension organizations for achieving sustainable development dimensions leadership. This is illustrated by the value of the weighted averages of between 3.73-3.56 degrees, which is higher than the hypothetical average of 3 degrees, and with a percentage weight between 71.2- 74.6%. Issues on the topics of change conflict on the culture of workers to achieve sustainable agricultural security was first in terms of importance or respondents' level of agreement with it, as it achieved a weighted average of 3.73 degrees, and a percentage weight of 74.6%. This may be attributed to the fact that changing some topics of change requires efforts from workers in the organizations in a way that preserves their culture for achieving sustainable agricultural security.

Meanwhile, lack of workers' confidence in the motives for leading the organizations to transform into sustainable agricultural systems was of least importance among respondents, achieving a weighted average of 3.56 degrees and percentage weight of 71.2%. This may be attributed to respondents' belief that trust in the motives of the leadership of the organizations to transform into sustainable agricultural systems is a vital element for the success of any effort to achieve this transformation.

Social obstacles: Responses on the 8 social obstacles facing change leadership in agricultural extension organizations, garnered a weighted average of 3.65 degrees, which was greater than the hypothetical 3-degree average, and a total percentage weight of 73.02% (Table 5).

Table 5: Distribution of respondents on the social obstacles item.

Importance	Form Sequence	Paragraphs	Weighted Average	Weight Percentage
1	1	Change leaders in extension organizations ignore the cultural aspects of change due to the time it takes to uncover values and beliefs in the rural community	3.80	76
2.5	8	The absence of policies and programs to mitigate the effects of climate change on agricultural production	3.72	74.4
2.5	2	Change leaders in extension organizations are comfortable with the familiar and fear the unknown	3.72	74.4
4	4	Workers in extension organizations misunderstand the expected effects of changes in the use of modern communication technologies in agricultural extension work	3.68	73.6
5	3	Change leaders in extension organizations fear losing power or vested interests associated with achieving justice and equality among the categories of rural society	3.62	72.4
6	6	The leaders of extension organizations have traditional opinions and ideas that see change as a threat to their interests	3.60	72
7	5	The leaders of extension organizations ignore the traditions, patterns, and standards of work to develop the rural community	3.57	71.4
8	7	Workers in extension organizations are not convinced of the feasibility of developing legislation regulating work in the agricultural sector	3.50	70
Overall average			3.65	73.02

As Table 5 shows, most respondents concurred on the 8 social obstacles facing change leadership in agricultural extension organizations to achieve sustainable development. This is seen in the weighted averages of between 3.80-3.50 degrees, which is higher than the hypothetical average of 3 degrees, and the percentage weight between 70- 76%. Despite this, the idea that change leaders in extension organizations ignore the cultural aspects due to the time it takes to uncover values and beliefs in rural society was first in importance among respondents, achieving a weighted average of 3.80 degrees, and a percentage weight of 76%. This may be due to the fact that such leaders do not take into account the values and beliefs that govern rural communities, which are important elements for understanding how people respond to change. Also, they feel time pressure, which leads them to make hasty decisions without the need to deeply examine cultural aspects, leading to the collapse of the rules of social control and the loss of its balance. Moreover, its impact on individuals in the rural community

was reflected in the negligence of change leadership in the organizations to determine the cultural aspects of change.

In contrast, the lack of conviction of workers in the organizations on the feasibility of developing legislation regulating work in the agricultural sector was least important in the opinion of respondents or their approval level at a weighted average of 3.50 degrees and a percentage weight of 70%. This may be attributed to the variation in the stages of issuing legislation regulating work in the sector in the long-run to satisfy the immediate needs of workers in the organizations. Legislation is required to keep pace with the various developments in agricultural work without acknowledging the centrality of the goal and the unity of the subject.

Economic obstacles: Responses on the 10 economic obstacles facing change leadership in agricultural extension organizations obtained a general weighted average of 4.06 degrees, which is greater than the hypothetical average of 3 degrees, and with a total percentage weight of 81.2% (Table 6).

Table 6: Distribution of respondents on the economic obstacles item.

Importance	Form Sequence	Paragraphs	Weighted Average	Weight Percentage
1	4	Lack of local investments to create economic development in rural communities	4.18	83.6
2.5	5	Lack of financial support for extension organizations to develop a comprehensive plan to advance rural communities	4.17	83.4
2.5	6	Continued deterioration of the agricultural sector and the resulting economic damages that negatively affect the sustainable exploitation of environmental resources by extension organizations	4.17	84.4
4	10	Lack of appropriate material and moral incentives to motivate workers to accept change and their desire to implement and succeed in achieving sustainable development dimensions	4.12	82.4
5	1	Lack of funding for change leaders in extension organizations to confront environmental risks and with the participation of all concerned parties	4.10	82
6	7	Lack of clear planning policies for extension organizations to invest economic resources irrationally, including water resources and raw materials	4.03	80.6
7.5	8	Weak equitable distribution of development projects in the agricultural sector	4	80
7.5	3	Lack of financial capabilities for extension organizations in the field of transferring environmentally friendly technology	4	80
9	9	Lack of use of modern technology by change leaders in extension organizations due to its high cost	3.96	79.2
10	2	Weak adoption by change leaders in extension organizations of a strategy aimed at securing the necessary monetary resources to transform the requirements to create a sustainable environment	3.87	77.4
Overall average			4.06	81.2

As is clear from the table, most respondents agreed on the existence of 10 economic obstacles facing change leadership in agricultural extension organizations to achieve sustainable development dimensions. This is reflected in the values of the weighted averages that ranged between 4.18 - 3.87 degrees, which is higher than the hypothetical

average of 3 degrees, and the percentage weight between 77.4- 83.6%. Despite this, the lack of local investments to achieve economic development in the rural community was of highest importance among respondents or their level of approval, achieving a weighted average of 4.18 degrees and a percentage weight of 83.6%. This may be due to the slow implementation of economic development plans in the rural community, which negatively and significantly affects local investments, in addition to the lack of creative ideas in agricultural extension organizations for using local investments to achieve economic development.

Meanwhile, weak adoption by change leaders of strategies aimed at securing the necessary cash resources to transform requirements was second in importance. The necessity to create a sustainable environment ranked last in terms of importance or the level of approval among respondents with a weighted average of 3.87 degrees and a percentage weight of 77.4%. This could be due to their belief that economic development is an essential strategy for securing the necessary financial resources to create a sustainable environment

Conclusions

1. The obstacles facing change leadership in agricultural extension organizations are of paramount importance and must be resolved, as they are a key factor in achieving the dimensions of sustainable development.
2. Economic obstacles are among the most prominent challenges facing change leadership in such organizations in adopting effective strategies to support sustainable development.
3. Administrative and organizational obstacles constitute a major obstacle to the ability of agricultural extension organizations to effectively practice change leadership to achieve the dimensions of sustainable development.
4. Financial and technical obstacles create an unsuitable environment for the successful practice of change leadership in agricultural extension organizations. The absence of these two dimensions leads to the failure to achieve sustainable development goals in economic, social, and environmental dimensions.
5. Social obstacles pose a major challenge to the practice of change leadership in agricultural extension organizations in shifting towards the dimensions of sustainable development.

Recommendations:

1. The Ministry of Agriculture should prepare scientific and practical plans to address the obstacles facing agricultural extension workers, such as increasing the number of extension workers, improving their livelihood inputs, and determining the scope of supervision in a manner commensurate with their training and capabilities.
2. Intensive training programs should be initiated by the leadership of agricultural extension organizations in coordination with the Ministry of Agriculture and relevant scientific research bodies, for their employees to develop skills to bring about change that achieves sustainable development.
3. Investments in the infrastructure of agricultural extension organizations should focus on modern technologies at all levels, such as smartphone applications, the

Internet, and artificial intelligence, to bring about changes that support the dimensions of sustainable development.

4. Additional studies should be conducted in relevant areas to identify agricultural supervisory issues that may hinder change leadership in agricultural extension organizations.

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A. Yaseen: methodology, writing—original draft preparation; M. A. Salman: review and editing. All authors have read and agreed to the published version of the manuscript.

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Data available upon request.

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The authors assert that the absence of any conflicts of interest during the information-gathering phase was essential to completing this research endeavor.

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