



Innovative Approaches to Agricultural Extension: The Use of Icts in Disseminating Agricultural Information

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Abstract

Agricultural extension services play a critical role in disseminating information to farmers, enabling them to adopt innovative farming practices, improve their productivity, and increase their income. In recent years, Information and Communication Technologies (ICTs) have emerged as powerful tools for agricultural extension, offering new and innovative ways to deliver information and support to farmers. This paper provides an abstract on innovative approaches to agricultural extension, focusing on the use of ICTs in disseminating agricultural information. The paper begins by providing an overview of the traditional approaches to agricultural extension and the challenges associated with them. It then highlights the potential of ICTs in overcoming these challenges and enhancing the effectiveness of agricultural extension services. The paper explores different ICT tools such as mobile phones, radio, internet-based platforms, and social media, and discusses how they can be used to provide timely and relevant agricultural information to farmers.

Introduction:

Agricultural extension services are vital in disseminating agricultural information to farmers. The traditional method of extension services is through face-to-face interactions between extension agents and farmers. However, this method is constrained by the limited number of extension agents and the high cost of providing extension services to farmers. To overcome these challenges, innovative approaches to agricultural extension have been developed, with the use of Information and Communication Technologies (ICTs) being a promising solution. ICTs refer to technologies that are used to communicate, create, store and process information. They include computers, mobile phones, the internet, social media, radio and television. The use of ICTs in agriculture has the potential to revolutionize the way information is disseminated to farmers.

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In this article, we explore some of the innovative approaches to agricultural extension that are being used with the help of ICTs.

1. Mobile phone-based extension services

The use of mobile phones to disseminate agricultural information to farmers has gained popularity in recent years. Mobile phones are widely used in rural areas and can reach even the most remote farmers. Mobile phone-based extension services can provide farmers with information on weather forecasts, market prices, soil testing, pest management, and other farming practices. In addition, farmers can use mobile phones to access agricultural loans and insurance.

2. Radio and television-based extension services

Radio and television are traditional mass media channels that have been used for decades to disseminate agricultural information. The use of these channels has been enhanced by the introduction of interactive programs that allow farmers to ask questions and receive feedback from experts.

The use of community radio stations is particularly effective in rural areas where internet connectivity is limited.

1. Social media-based extension services

The use of social media platforms such as Facebook, Twitter, and WhatsApp has become popular in disseminating agricultural information. Farmers can join social media groups and receive information on new farming practices, market prices, and weather forecasts. Social media platforms also provide a platform for farmers to share their experiences and learn from each other.

1. E-learning and online courses

E-learning and online courses are becoming popular in agricultural extension services. Farmers can access online courses on their mobile phones or computers and learn about new farming practices and technologies. Online courses also provide an opportunity for farmers to interact with experts and ask questions.

5. Agricultural information systems

Agricultural information systems are computer-based systems that provide farmers



with information on weather forecasts, market prices, and other farming practices. These systems are usually linked to weather stations and market information systems, providing farmers with real-time information on weather conditions and market prices.

Conclusion

The use of ICTs in agricultural extension services has the potential to revolutionize the way information is disseminated to farmers. These innovative approaches to agricultural extension services are cost-effective, accessible, and scalable. However, there is a need to ensure that farmers have access to the necessary ICTs and have the skills to use them effectively. Governments, non-governmental organizations, and the private sector should work together to provide the necessary infrastructure and support to ensure that farmers benefit from these innovative approaches.

References

1. Arshad, M., & Akhtar, M. J. (2021). ICT-based extension services in agriculture: a review. *Journal of Agribusiness and Rural Development*, 60(2), 131-141.
2. Birhanu, M., & Yilma, Z. (2020). Effectiveness of Information and Communication Technology (ICT) based agricultural extension services in Ethiopia: A systematic review. *Journal of*

Agricultural Extension and Rural Development, 12(4), 97-104.

3. FAO (Food and Agriculture Organization of the United Nations). (2016). *ICT in Agriculture: Connecting Smallholders to Knowledge, Networks, and Institutions*. Rome.
4. Kekre, S., & Shinde, R. (2020). Role of ICT in Agriculture: An Overview. *International Journal of Scientific & Engineering Research*, 11(2), 67-71.
5. Sibanda, S., Mashingaidze, A. B., & Chipangura, T. (2020). ICT-based agricultural extension services and farmer performance in developing countries: A systematic review. *African Journal of Agricultural Research*, 15(9), 1745-1756.