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Digital Farming and Economic Growth

Dr. Harkesh Kumar Balai¹, *S. Shaikshavali², M. Hemanth² and A. Srivani²

¹Assistant Professor, Faculty of Agriculture, Jagannath University, Jaipur, Raj., India

Student, B.Sc. (Hons.) Agriculture, Jagannath University, Jaipur, Raj., India

*Corresponding Author's email: candychandu773@gmail.com

Digital farming, also known as smart farming or precision agriculture, refers to the integration of digital technologies into agriculture to improve productivity, sustainability, and profitability. By leveraging technologies such as GPS, IoT, AI, big data, and drones, digital farming is revolutionizing traditional agricultural practices.

Role of Digital Farming in Agriculture

Digital farming involves real-time data collection, analysis, and decision-making tools that help farmers monitor soil conditions, crop health, weather patterns, and resource usage. These technologies enable farmers to:

- Optimize the use of water, fertilizers, and pesticides.
- Reduce costs and environmental impact.
- Increase crop yield and quality.
- Improve supply chain management.

Economic Benefits

- Increased Productivity: Smart farming enables better decision-making, leading to higher crop yields and efficient use of resources.
- Employment Generation: The need for tech-based farm operations opens up job opportunities in rural areas.
- Market Access: Digital platforms help farmers connect directly with buyers and markets.
- Investment and Innovation: Modernization attracts investments and encourages agri-tech innovation.
- Export Potential: Improved productivity enhances export capacity, boosting national income.

Challenges

Despite its benefits, digital farming faces challenges such as:

- High initial investment costs.
- Lack of digital literacy among farmers.
- Poor internet connectivity in rural areas.
- Data privacy and ownership issues.

Conclusion

Digital farming is transforming agriculture into a more efficient, sustainable, and economically viable sector. By bridging the gap between technology and traditional practices, it enhances farm productivity and contributes to broader economic growth. Collaboration between governments, private sectors, and farmers is key to unlocking its full potential.