Indian Economy · GS - III

How does e-Technology help farmers in production and marketing of agricultural produce? Explain it.

EXAM YEAR	PAPER	SUBJECT
2023	GS - III	Indian Economy

MARKS	WORD LIMIT
10	~150 words

Answer Hint

E-technology reduces information asymmetry and transaction costs by connecting farmers with timely information, precision tools, markets and financial services, thereby improving productivity, price realisation and market access.

Model Answer

Introduction

Agriculture is highly dependent on timely information regarding weather, inputs, technology and markets. E-technology can bridge these information gaps and improve both production and marketing.

Body

Role in Production

Weather information: Digital platforms provide forecasts and advisories, enabling farmers to plan sowing, irrigation and harvesting.

Precision agriculture: Sensors, drones, satellite imagery and GPS-based technologies facilitate efficient application of water, fertilisers and pesticides.

Expert advice: Mobile applications and digital extension services provide information on crops, pests and disease management.

Input access: Digital platforms connect farmers with suppliers of seeds, fertilisers and machinery.

Role in Marketing

e-NAM: Provides an electronic platform for connecting agricultural markets and facilitating wider buyer participation.

Price information: Mobile-based market information improves farmers' bargaining power and helps them choose appropriate markets.

Digital payments: Reduce transaction time and improve payment transparency.

Direct marketing: Digital platforms enable farmers and producer organisations to connect directly with consumers and institutional buyers.

Limitations

Digital illiteracy, poor connectivity, fragmented holdings, inadequate local infrastructure and cyber risks can restrict benefits.

Conclusion

E-technology can transform farmers from **information-deficient producers into informed market participants**. Combining digital tools with physical market infrastructure, extension services and farmer training is essential for inclusive agricultural transformation.

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