Indian Economy · GS - III

Describe the various Technology Missions initiated in Indian agriculture and examine their role in food security.

EXAM YEAR	PAPER	SUBJECT
2026	GS - III	Indian Economy

MARKS	WORD LIMIT
10	~150 words

Answer Hint

Technology Mission on Oilseeds, NMAET, NMSA, NFSM, MIDH, Digital Agriculture Mission, productivity, climate resilience, post-harvest management

Model Answer

India’s agricultural technology missions have evolved from crop-specific interventions to integrated and digital approaches.

Major initiatives include:

1. Technology Mission on Oilseeds (1986): improved seeds, extension and processing to reduce edible-oil dependence.
2. National Mission on Agricultural Extension and Technology: seeds, mechanisation, plant protection and technology dissemination.
3. NFSM: productivity enhancement in rice, wheat, pulses and nutri-cereals.
4. NMSA and MIDH: climate-resilient farming, water efficiency, horticulture and post-harvest management.
5. Digital Agriculture Mission: AgriStack, geospatial data, crop estimation, AI and decision-support systems.

Their contribution to food security is multidimensional: higher productivity expands food availability; improved seeds and mechanisation raise resource efficiency; climate-smart technologies strengthen resilience; and digital advisories improve timely farm decisions.

However, unequal technology adoption, fragmented holdings and inadequate extension can limit benefits.

Thus, technology missions can transform food security from a production-centric approach towards productivity, resilience, nutritional diversity and sustainable resource management.

BECOME IAS
AI POWERED UPSC PREP