Indian Economy · GS - III

Value addition and food processing of traditional agricultural products can transform regional specialities into engines of inclusive rural growth. Examine the potential of Bihar's makhana sector in this context.

EXAM YEAR	PAPER	SUBJECT
DAILY PRACTICE 19/11/2026	GS - III	Indian Economy

MARKS	WORD LIMIT
10	~150 words

Answer Hint

Agricultural diversification, Makhana Board, GI recognition, food processing, farmer income, export potential, rural employment, FPOs, cold-chain infrastructure, branding, sustainable wetland management, quality standards.

Model Answer

Introduction

Makhana, derived from the aquatic plant *Euryale ferox*, is an important traditional crop of Bihar, particularly the Mithila region. Its growing demand offers opportunities for agricultural diversification and rural industrialisation.

Potential for Rural Economic Transformation

1. **Value addition:** Products such as flour, snacks and specialised nutritional foods can increase the value of raw makhana.
2. **Farmer income:** Processing and organised marketing can reduce dependence on raw-product sales and improve farmers' bargaining power.

3. **Employment generation:** Processing units, packaging, transportation and marketing can create rural and women-led employment.
4. **Export opportunities:** Branding and quality certification can strengthen its position in domestic and international markets.
5. **Regional development:** Makhana-based enterprises can promote entrepreneurship in traditional production regions.

Major Challenges

- Fragmented cultivation and limited access to modern processing technology.
- Inadequate storage, packaging and supply-chain infrastructure.
- Price fluctuations and dependence on intermediaries.
- Need for scientific quality testing, food safety compliance and product standardisation.
- Ecological concerns relating to wetland management and water quality.

Way Forward

Strengthening farmer-producer organisations, improving processing infrastructure, promoting research and development, and developing market linkages are essential. Nutritional claims and products intended for infants must comply with rigorous food safety and age-specific nutritional standards.

Conclusion

Makhana can become a model of region-specific agricultural value addition. Integrating farmers with processing, branding and export networks can generate inclusive growth while protecting the wetland ecosystems on which its cultivation depends.