



Crisil

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Monthly dashboard – Makhana (Fox-Nut)

HS code: 20081921, 20081922, 20081929

May-2026

Acreage and production trends



Crop calendar for Makhana (Fox Nut) in India

Months	Activities
Nov	Preparation & Sowing: Seeds are sown in prepared water bodies after site preparation.
Dec	
Jan	Germination: Seeds germinate, and early leaves appear on the water surface. Water Level Maintenance: Farmers maintain an optimal water level to support the growing seedlings.
Feb	Vegetative Growth: Plants develop huge, thorny leaves that cover the water surface.
Mar	Transplanting: Seedlings are transferred from nursery plots to the main field.
Apr	Flowering: The flowers, which are violet-blue or dark pink, start to appear and reach their peak in May.
May	Fruiting: After flowering, the fruits are produced. They are round, spongy, and prickly.
Jun	Fruiting Stage: The fruits continue to mature underwater.
Jul	Fruit Bursting: Mature fruits burst underwater, scattering their seeds on the pond bottom.
Aug	Harvesting: The seeds, which have sunk to the bottom, are collected manually from the pond bed. Seed Collection: This is a strenuous process for the farmers
Sep	
Oct	

- Makhana cultivation is a year-round, water-dependent crop, with critical stages such as transplanting and underwater seed collection making it highly labor-intensive.
- The August–October harvest window creates seasonal supply pressure, and the strenuous manual process highlights the need for mechanization and process improvements.



India’s Makhana (Fox Nut) production trends and cultivation methods

Area and production of Makhana in India		
Year	Area (Ha)	Production (MT) Popped Makhana
MY 2024 -25 final estimate	31546.5	63895
MY 2025-26 (E)	31958.5	64601

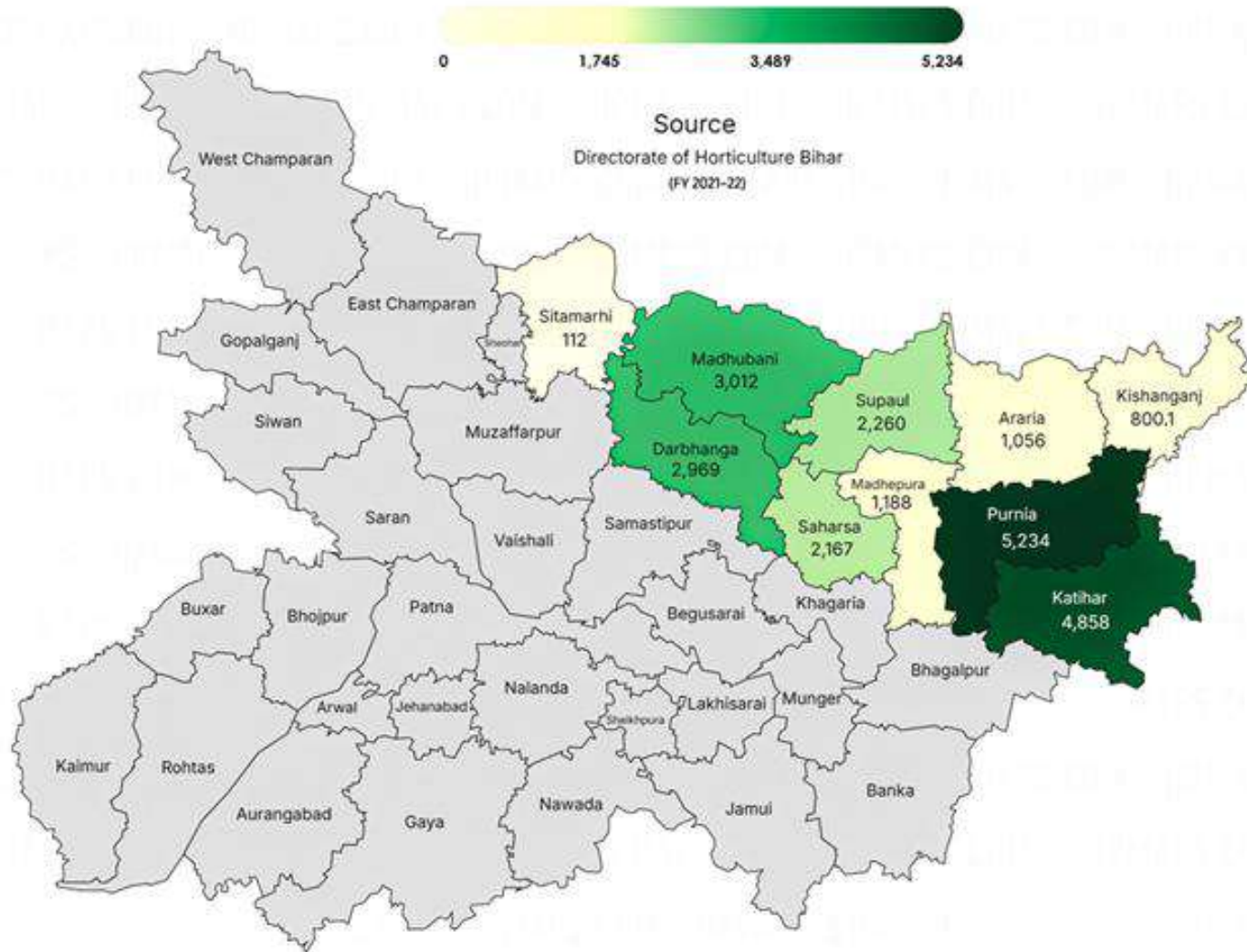
Note: Makhana seed to popped makhana conversion is ~42-43%
MY: April-March

Methods of Makhana Cultivation in India		
Method	Key Feature	Benefit
Pond Based	Traditional, Most Widely	High Yield, Low Input Cost
Field Based	Suitable for non-pond Areas	Expands Cultivation to New Regions
Makhana + Fish (Integrated)	Dual Production System	Higher Profit, Efficient Resource Use

- India remains the undisputed global leader in Makhana production, with **Bihar alone accounting** for nearly **80–85% of the world’s output**.
- This growth has been supported by improved agronomic practices, the shift toward field-based cultivation, and the wider adoption of integrated Makhana–fish farming systems, which have enhanced yields and farmer incomes.
- According to **1st advanced estimates from ministry of agriculture**, Makhana production stood at **64,601 MT for MY 2025-26 E**.
- **If El Niño conditions occur in 2026**, makhana production may face risks due to weaker monsoon rainfall and reduced pond water levels—particularly in Bihar, which accounts for about 90% of India’s output. Below-normal rainfall could limit pond recharge, delay cultivation activities, and negatively affect seed development and yields.

District wise Makhana production in Bihar

District-wise Makhana Pop Production in Bihar



- **Bihar contributes ~90% of India's production** and nearly **80–85% of global supply**, making it the undisputed leader in this sector.
- **Traditionally grown in ponds**, modern techniques such as field-system farming and improved varieties like Swarna Vaidehi and Sabour Makhana-1 have helped increase productivity.
- **The crop has received a GI tag (Mithila Makhana)** and is witnessing growing export demand in markets such as the US, UAE, Canada, and Australia.
- Government initiatives, research institutions, and organic farming drives are supporting expansion of the area under cultivation.
- However, the sector faces challenges including climate change, water scarcity, labor-intensive practices, price volatility, and limited local processing infrastructure.



Export and Import trends

Indian Makhana exports

HS codes	Product description	Volume (MT)	Value (USD million)	Value (INR crores)
20081921	Makhana Popped	196.8	2.37	21.02
Value added products				
20081922	Makhana Flour and Powder	726	1.72	14.71
20081929	Other(Makhana)	6341.7	17.7	157.2
	Total (including popped)	7265	21.79	192.93

Source: DGFT, Apr’25 to Mar’26

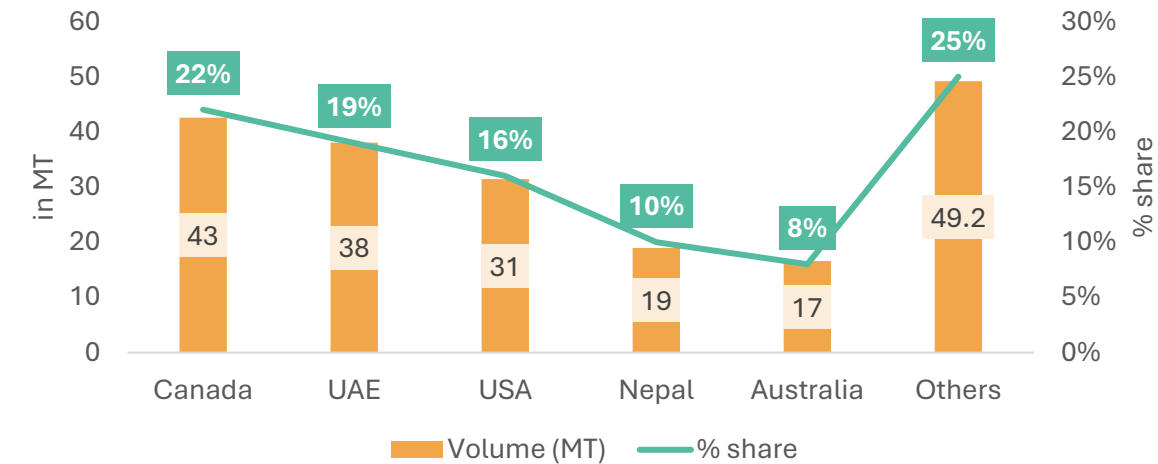
Size (mm)	Grades	Usage	Category
12-15 MM	4 Suta	Economical, widely used in flavoring	Regular
15-18 MM	5 Suta	Popular for regular snacking	Good
18-21 MM	6 Suta	Premium market grade	High
>21 MM	7 Suta	Extra-large, export-ready, high-value	Premium

- India exported 7626 MT worth USD 21.79 million during Apr’25–Mar’26, implying an average realization of ~USD 3,000 per MT — reflecting strong value positioning.
- **Exports are highly concentrated in bulk category:** “Other (Makhana)” accounts for 87% volume share, with realization of ~USD 2,791 per MT, indicating dominance of semi-processed exports.
- **True premium segment is popped makhana:** Though only 196.8 MT (3% volume), it generated USD 2.37 million, translating to ~USD 12,043 per MT — nearly 4x higher realization than bulk categories.
- **Flour & powder segment remains moderate:** With 726 MT accounts for 10% volume share, realization stands at ~USD 2,369 per MT, lower than bulk category, suggesting limited value capture.

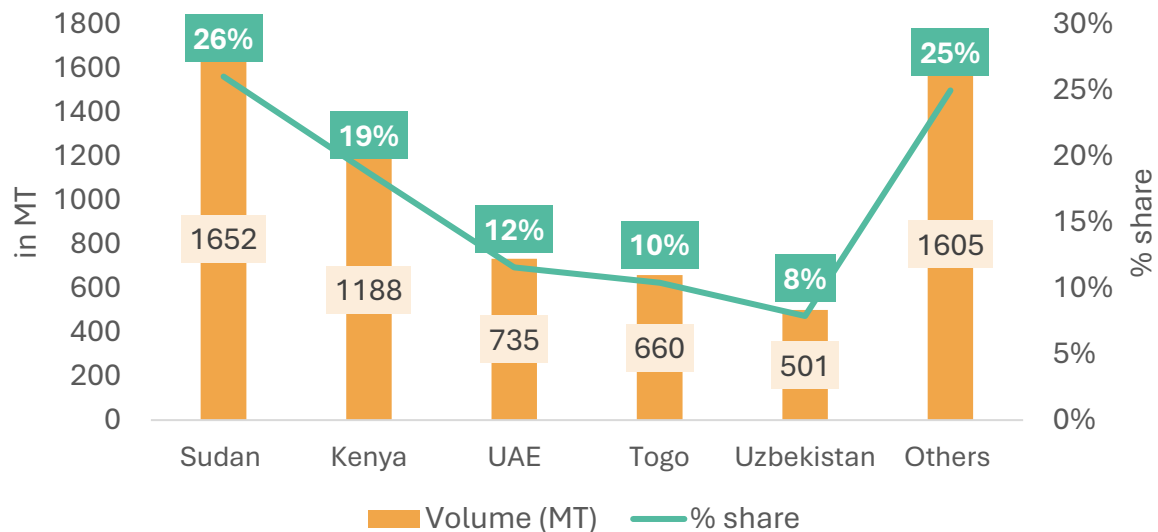
Note: Earlier, Makhana and its products was being exported under the HS code 19041090. However, from July’25 newly assigned HS codes for Makhana as under 20081921 (Makhana Popped), 20081922 (Makhana Flour and Powder), 20081929 (Other(Makhana))

Major importers of Indian Makhana

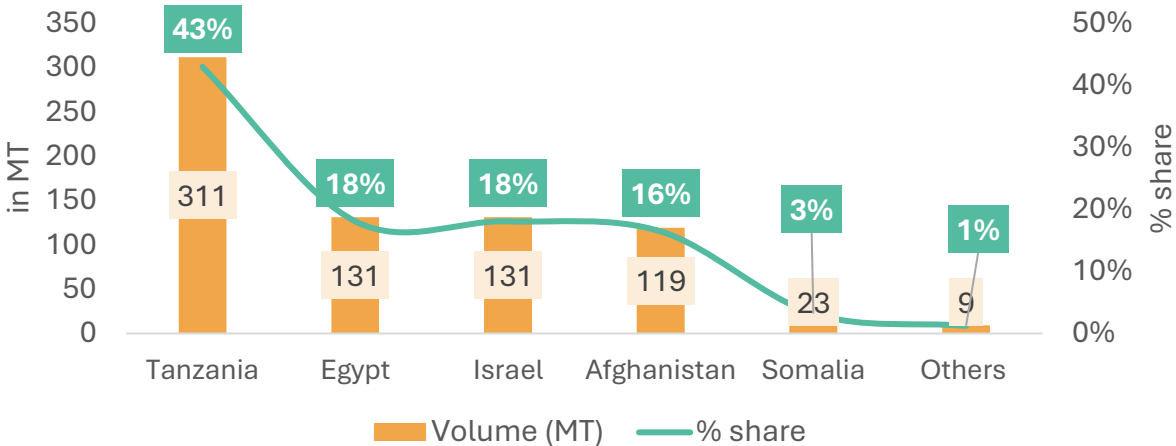
Major importing countries (20081921)



Major importing countries (20081929)



Major importing countries (20081922)



- **Popped makhana (HS 20081921) is strongly positioned in premium retail markets**, with Canada, UAE, USA and Australia. This reflects its acceptance as a packaged health snack in high-income, diaspora-driven markets.
- **Flour (HS 20081922) exports are highly concentrated** in Africa, with Tanzania alone accounting for ~43% of volumes, indicating both market concentration risk and primarily ingredient-based demand rather than branded retail consumption.
- **Bulk (Other) makhana (HS 20081929) exports** are largely Africa-focused, led by markets like Sudan (~26%), suggesting India is supplying semi-processed makhana as a commodity in these regions rather than higher-value finished snack products.

Promising export opportunities for Indian Makhana

European Union (Germany, Netherlands, France) and UK

- Growing demand for plant-based and gluten-free snacks, creating a favorable market for Makhana products
- Superfoods have a strong retail presence in organic chains and online platforms
- Organic certification for Makhana products can help command premium pricing
- The Netherlands and Belgium can serve as strategic entry points for distributing Makhana products to EU market.

Canada, Australia & South Africa

- Similar consumption pattern to US; strong Indian diaspora. High growth in organic snacks and clean-label products
- Collaborate with ethnic stores and mainstream retail chains.

Southeast Asia (Singapore, Malaysia, Thailand)

- Rising health-conscious urban population and preference for light snacks. Makhana can replace fried snacks in wellness markets.
- Target Singapore as a re-export hub for ASEAN markets. Introduce small pack sizes for convenience stores.

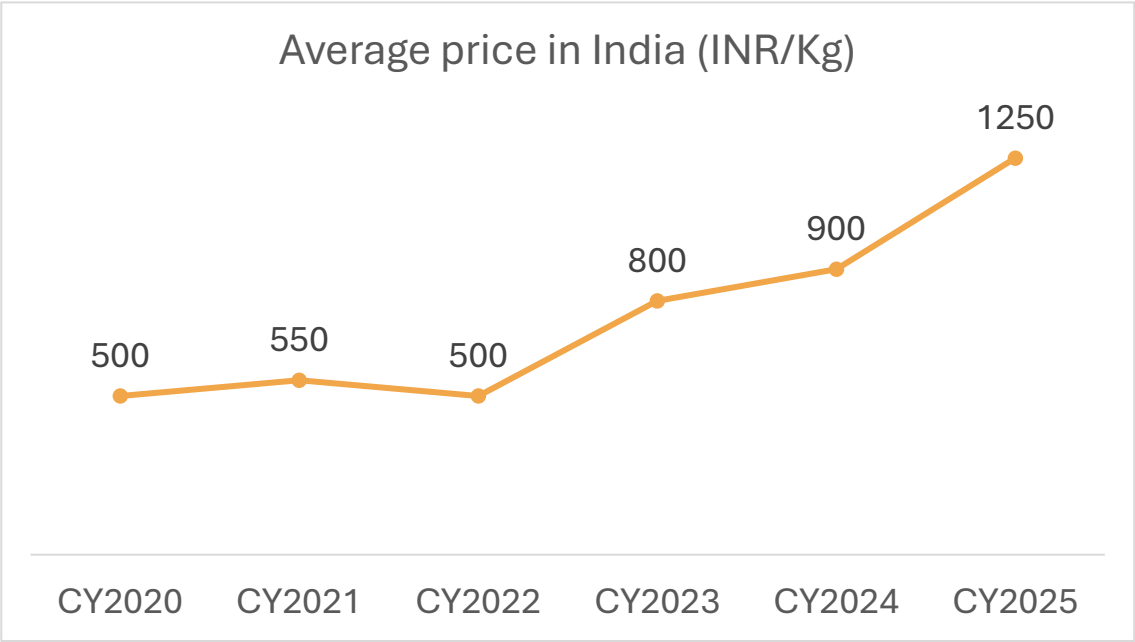
Middle East (UAE, Saudi Arabia, Qatar)

- High demand for healthy snacks among expats and premium consumers, supported by a large Indian diaspora that drives familiarity with Makhana.
- The organic and vegan product segment in retail is also witnessing strong growth. Position Makhana as a premium healthy snack in hypermarkets such as Carrefour, Lulu, and Spinneys. Offer flavored variants (spicy, masala, cheese) tailored to local taste preferences.

A photograph of a pond filled with numerous green lily pads. The lily pads are of various sizes and are densely packed, covering most of the water's surface. The water is dark and still, reflecting the green of the leaves. The lighting is bright, suggesting a sunny day. On the right side of the image, the words "Domestic market" are written in a bold, black, sans-serif font. The text is positioned over a white, semi-transparent rectangular area that fades into the background.

**Domestic
market**

Domestic price trends



Source: Merakisan

Note: Avg price is for export quality 6 & 7 suta grade

Makhana Grades	Domestic prices (INR Per kg)				
	Jan'26	Feb'26	Mar'26	Apr'26	May'26
4 Suta	600-630	600-630	620-650	650-670	650-670
5 Suta	900-930	900-930	900-950	950-1000	950-1000
6 Suta	1150-1200	1000-1150	1050-1200	1100-1250	1100-1250
7 Suta	1250-1300	1200-1250	1200-1300	1300-1400	1300-1400

Source: Trade source, (primary interaction)

- Makhana prices are expected to remain elevated through 2026, supported by structurally strong demand from the health-food segment and limited scope for rapid supply expansion.
- Premium grades (6 & 7 Suta) are likely to outperform lower grades, as export demand and value-added processing continue to increase, supporting a wider quality premium.
- El Niño-induced rainfall deficit in Bihar (below normal rainfall) could trigger a supply squeeze, particularly for export and premium grade makhana, leading to heightened price volatility and upside risk.
- Overall, domestic prices are expected to remain steady to higher over the next quarter, with weather-related production risks likely to keep the market biased towards price strength.

Thank You