Edible Oils: Strategising for 2047

Far beyond their culinary use, Edible Oils are essential sources of nutrition for a predominantly vegetarian population and serve as a key indicator of the nation's food security. Yet, as demand continues to soar with population growth and changing consumption patterns, India's increasing dependence on imports poses a serious challenge. This report explores the historical evolution, current status, and future trajectory of India's edible oil sector, emphasizing the urgent need for a comprehensive, forward-looking strategy to ensure nutritional and economic sovereignty by 2047.

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1. Introduction

Edible oils are not just kitchen staples, they are central to India's food culture, nutritional wellbeing, and economic sovereignty. As dietary fats, they contribute to energy intake, support essential body functions, and influence long-term health outcomes. For a largely vegetarian population like India, edible oils serve as a primary source of essential fatty acids and fat-soluble vitamins (A, D, E, and K), making them vital for both sustenance and nutrition.

Over the decades, India's edible oil landscape has undergone a marked transformation – shaped by agro-climatic conditions, cultural preferences, and economic liberalization. Traditional oils like mustard (North & East), groundnut (West), and coconut (South) dominated regional diets until the 1960s, when the Green Revolution introduced soybean into mainstream consumption. This was followed by a surge in palm oil imports during the 1990s due to its low cost and high shelf stability. Between **1951 (population: 361 million)** and **2023 (1.43 billion)**, India's population grew nearly **fourfold**, while total edible oil consumption surged tenfold – from **~2.5 million tonnes to ~25 million tonnes**. Consequently, per capita edible oil intake rose from approximately 3/kg/year in the 1950s to around 23–24/kg/year in 2023 (Sources: SEA; Ministry of Agriculture & Farmers Welfare; NITI Aayog).

Looking ahead, India's population is expected to reach **1.66 billion by 2047** (UN World Population Prospects, 2022). To project future demand, we assume a **modest per capita intake of 28/kg/year**.

At this projected rate, **India's edible oil requirement in 2047 will cross 46.5 million tonnes annually**. This demand surge underscores the dual burden of demographic expansion and nutritional transition – calling for an urgent and comprehensive long-term strategy to ensure edible oil security for India@2047.

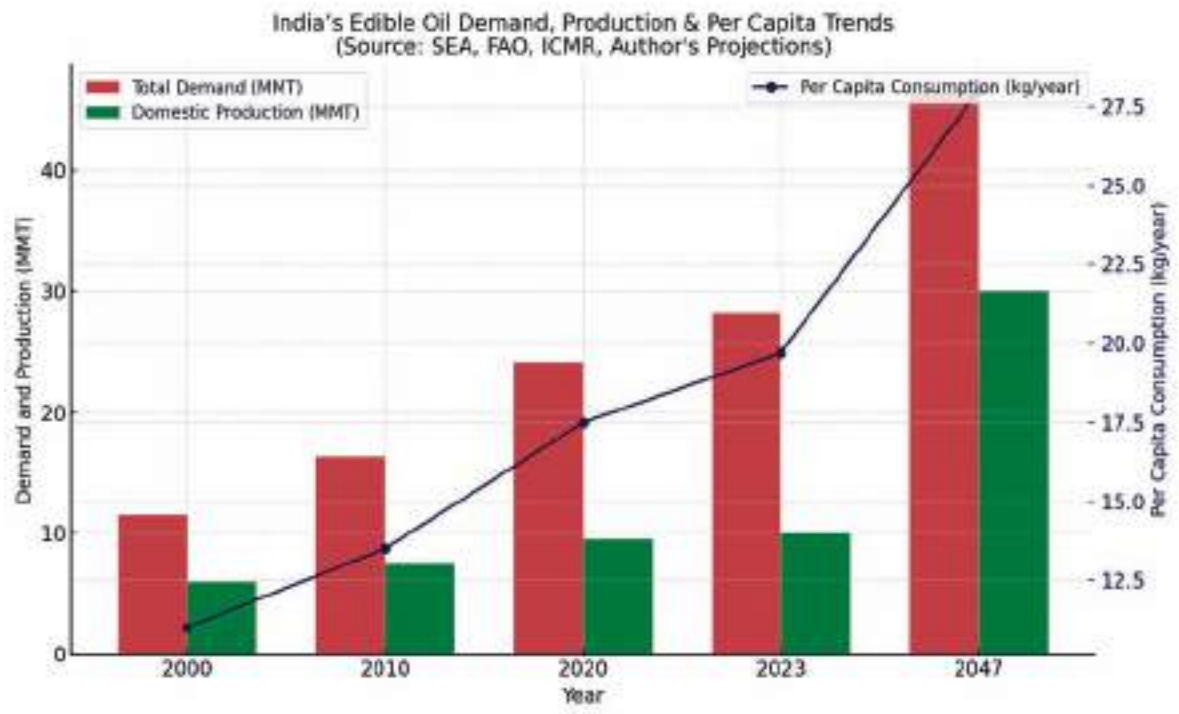
As of 2023, **over 60% of India's edible oil consumption** is met through **imports**, with palm oil alone accounting for nearly **55% of total consumption**, followed by soybean and sunflower oil (Source: SEA, 2023). In contrast, domestically produced oils like **mustard (~11%)**, **groundnut (~6%)**, and **coconut (~3%)** continue to cater to regional preferences but are insufficient to meet national demand. This heavy reliance on imported oils underscores the vulnerability of India's edible oil economy to **global supply disruptions and price volatility**, making strategic planning all the more imperative.

In the journey towards India@2047, edible oil is not just a commodity – it is a strategic asset. Planning for it now is an investment in the nutritional security of our citizens, in strengthening the economy, and in ensuring India's nutritional sovereignty.

2. Current Scenario: Demand, Supply, Imports & Nutritional Risks

2.1 Rising Demand and Consumption Trends

Figure: India's Edible Oil Landscape (2000–2047)



Source: SEA of India, FAOSTAT, ICMR-NIN, Author's Projections

This chart visualises the trends in total edible oil demand, domestic production, and per capita consumption over time. The widening gap underscores India's critical import dependency.

India's edible oil landscape presents a concerning imbalance between growing demand and stagnant domestic production. As illustrated above, total edible oil consumption has increased from around **11.5 million tonnes in 2000** to nearly **28 million tonnes in 2023** and is projected to exceed **46 million tonnes by 2047**. However, domestic production has remained relatively stagnant, hovering near **10 million tonnes**, fulfilling only **35–40%** of current demand (SEA Annual Report, 2023).

Unless corrective measures are urgently implemented to boost domestic oilseeds productivity, diversify cropping systems towards oilseed production, and secure trade partnerships, India's nutritional sovereignty, economic resilience and political aspirations will remain vulnerable. This reality makes a long-term edible oil strategy not only desirable but imperative in achieving India@2047 vision

2.2 Rising Imports and Forex Burden

India imports more than **55%** of its edible oil consumption requirements, making it the **world's largest edible oil importer**. In FY 2022–23, imports crossed **15.3 million tonnes**, resulting in a foreign exchange outgo of **1.4 lakh crore (~USD 17 billion)**.

These imports are not only a reason for huge economic burden but also a geopolitical risk, making India's food basket vulnerable to global price volatility, trade restrictions, supply disruptions as was seen during the COVID-19 pandemic, Ukraine-Russia conflict and more importantly during the terrorist attack by Pakistan, when Malaysia, one of the two leading oil palm producing and exporting countries to India sided with the enemy country Pakistan making palm oil import difficult.

Moreover, frequent import duty adjustments used as price control mechanisms act as **implicit subsidies for foreign producers**, undermining the economic viability of Indian oilseed farmers and domestic processors.

Table 1: **India's Edible Oil Imports – FY 2022–23**

Oil Type	Volume (MMT)	Share of Imports (%)	Key Source Countries
Palm Oil (Crude + Refined)	8.3	54%	Indonesia, Malaysia
Soybean Oil	3.9	25%	Argentina, Brazil
Sunflower Oil	2.6	17%	Ukraine, Russia
Others	0.5	4%	Mixed

Source: Directorate General of Foreign Trade (DGFT), SEA of India (2024).

2.3 The Case for Strategic Intervention

India's edible oil sector presents a multi-layered paradox:

- **High cultivation area** under oilseeds, yet **low productivity** compared to global benchmarks.
- **Heavy import dependence**, despite the availability of **land, labor, and climatic diversity** conducive to oilseed cultivation.
- **Nutritional concerns** persist, even though India has access to healthier, indigenous oils such as mustard, groundnut, sesame, and coconut.

- Current policy responses have been reactive and short-term:
  - Predominantly focused on **price controls**, **tariff adjustments**, and **import duty changes**.
  - These measures, while useful for short-term inflation control, do not address structural inefficiencies in domestic production.

India must move from reactive price management to **proactive national planning** for long-term edible oil security.This includes comprehensive reforms in **research and development**, **seed systems**, **procurement infrastructure**, **market incentives**, and **consumer awareness**.

3. Challenges and Constraints in India's Edible Oil Ecosystem

India ranks high in oilseed cultivation but remains import-dependent due to**low productivity, poor profitability**, and **inefficient value chains**.

3.1 Agronomic & Technological Bottlenecks

- **70%+ oilseed area is rainfed**, limiting productivity due to erratic rainfall and poor irrigation.
- Grown mostly on **marginal lands**, unlike better-supported crops like paddy, wheat or sugarcane.

- **Low R&D investment** in oilseeds ! lack of high-yield, pest-resistant varieties (except mustard hybrids covering ~50%).
- **Mechanisation and cropping system integration** remain inadequate.
- **Emerging tools** like machine learning, diagnostic surveys offer potential but are underused.

3.2 Economic Viability & Farmer Incentives

- MSPs exist, but **procurement is <25%**, leaving farmers vulnerable to price crashes and distress selling.
- High input costs and fragmented holdings resulting in low returns.
- Farmers prefer wheat, rice, maize due to **better MSP coverage, and market access**.
- Due to low profit, farmers do not cultivate oil seeds under irrigated land or where there is assured irrigation.

3.3 Processing & Infrastructure Gaps

- **Fragmented processing sector**: modern solvent units limited to few states; outdated ghani systems persist, resulting in low oil extraction and therefore low return.
- **Underutilised opportunity**:**Rice bran oil** from 51.4 M ha → potential to scale from 1.1–1.4 MMT/year and **Corn oil** has emerging promise.
- 7–10% Post-harvest losses of oil seeds produced due to poor storage, grading, and infrastructure mismatch, has to be tapped to increase production.

3.4 Import Policy Paradoxes

- Policy swings: **duty cuts for consumers vs tariffs for farmers** → creates market distortion. Refined palm oil cheaper than the crude post-duty cut hurts Indian refiners. This discourages investment, and affects farm gate prices .

3.5 Consumer Awareness & Nutritional Mismatch

- Traditional oils (mustard, sesame, groundnut) losing ground to **cheap palm oil**, preferred by industries.
- **Weak labelling regulations**: palm oil often hidden in unreadable fonts.
- **Public unaware** of health risks of palm oil and benefits of traditional oils.
- **Lack of targeted awareness campaigns** and regulatory enforcement.

4. Projections and Strategic Requirements for 2047

4.1 Estimated Consumption in 2047

India's per capita edible oil consumption is expected to rise from **19.7/kg/year in 2023** to around **28/kg/year by 2047**, driven by income growth, urbanisation, and a shift towards processed and convenience foods. However, from a public health standpoint, the **Indian Council of Medical Research (ICMR)** recommends a daily visible fat intake of **20–25 grams**, which translates to **7.3–9.1/kg per person annually**. This presents a paradox: India is consuming more than twice the recommended minimum, yet remains heavily dependent on **imports**.

The core issue is not lack of oil **in absolute terms**, but the overwhelming dependence on **refined imported oils**, particularly **palm and soybean oil**, which are often **nutritionally inferior**, high in **saturated fats**, and vulnerable to **global market volatility**. The strategic goal for 2047 is therefore not simply to expand edible oil volume, but to **build domestic capacity**, ensure **nutritional quality**, and reduce exposure to external shocks.

This is particularly pressing given the projections shown below. With a population of **1.66 billion by 2047** and rising per capita intake, total demand is expected to reach **46.5 million tonnes**, while current domestic production is just **~10 MMT**. Without a structural shift toward **indigenous oilseed production**, the gap will only widen – putting strain on the exchequer, trade balance, and national nutrition profile.

Table: Projected Population and Edible Oil Demand in India (2023–2047)

Year	Population (Billion)	Per Capita Consumption (kg/year)	Total Demand (MMT)
2023	1.43	19.7	28.17
2030	1.50	21.0	31.50
2040	1.60	25.0	40.00
2047	1.66	28.0	46.48

Source: FAOSTAT, Niti Aayog, SEA of India (projections based on trends)

4.2 Fast-Tracking Domestic Production to Meet 2047 Goals

To reduce import dependence and achieve **self-reliance** by **2047**, India must stabilize cultivation of **30–35 million hectares** under oilseeds and **nearly double yields** from ~1,100 kg/ha to **1,800–2,000 kg/ha**.

Priority Actions:

1) Accelerate R&D in productivity of indigenous oil crops and Seed Replacement
   - Focus on mustard, soybean, sesame, and groundnut.
   - Boost public–private breeding programs for high-oil, resilient varieties.
   - Raise **Seed Replacement Rate** from ~35% to **60%+**.
2) Agro ecological Fit
   - Promote **intercropping** and **crop substitution** in water-stressed areas.
   - Enhance area under cultivation of indigenous oil crops like mustard, groundnut, sesame, coconut, especially under irrigated condition.
   - Replace low-efficiency crops like late wheat or sugarcane where feasible.
3) Improve Water and Soil Use
   - Expand **micro-irrigation** and **soil health management**, especially in rainfed zones.
4) Strengthen Market and Farmer Incentives
   - Increase **MSP procurement coverage** (currently <25%).
   - Link oilseeds to **institutional demand** (PDS, mid-day meals).
   - Offer **input support, insurance**, and price assurance.
5) Leverage Non-Traditional Sources
   - Scale up substantially **rice bran oil production**.
   - Expand **oil palm** only in ecologically suitable regions.

A targeted, time-bound production strategy can put India firmly on the path to edible oil self-reliance by 2047.

4.3 Strategic Role of Imports in Edible Oil Security

By 2047, India's edible oil demand is projected to reach **46.5 million metric tonnes (MMT)**. Even under the most ambitious domestic roadmap – targeting **30 MMT through yield enhancement, technological innovation, and area optimisation** – a supply-demand gap of **16.5 MMT** will remain. This gap must be met through well-calibrated, resilient imports, which should not adversely affect domestic oilseeds production and the oil industry.

Key Priorities:

- **Diversified Sourcing:** Move beyond traditional suppliers (Indonesia, Malaysia, Argentina, Ukraine) through **multi-origin hedging mechanisms[2]** to manage geopolitical and climatic risks.
- **Public–Private Import Consortiums[1]:** Facilitate bulk procurement via long-term contracts negotiated jointly by government and industry, reducing price shocks and ensuring secure access.
- **Strategic Oil Reserve:** Create a **buffer stock of 2-3 MMT** across geographies to absorb global price volatility and protect domestic stakeholders during disruptions.

Box 1: Strategic Oil Diplomacy – Global Models and Lessons for India

While India's edible oil strategy has historically been reactive, global powers have used **oil diplomacy** to reduce import volatility. For instance:

- **China** secures over 80% of its soybean oil imports through long-term contracts with Brazil, backed by joint infrastructure investments and concessional financing.
- **Indonesia** and **Malaysia** maintain national export quotas and have sovereign agreements with select buyers to stabilize demand-supply conditions.
- The **EU**, under its Farm to Fork Strategy, mandates long-term food import security protocols with African and Latin American nations, often tied to sustainability and traceability standards.

Footnotes:

[1] *Public-private import consortiums* refer to collaborative procurement models involving government agencies and private players to negotiate long-term edible oil supply contracts, ensuring price stability and secure access.

[2] *Multi-origin hedging mechanisms* involve diversifying sourcing across multiple geographies and using instruments like forward contracts and commodity exchange futures to mitigate price and supply risks.

- **Dynamic Import Duty Framework:** Link duties to global indices (e.g., Bursa Malaysia, CBOT) to stabilise retail prices without undercutting farmer incentives.
- **Triangular Trade & Barter:** Explore trade deals exchanging surplus food grains or value-added agri-exports for edible oil with Southeast Asia and Africa.

Even as India scales up local production, a **robust, strategic import framework** will be essential to ensure edible oil security, manage forex exposure (currently ~ 1.3 lakh crore/ year), and meet nutritional needs of a growing population.

India's opportunity lies in creating hybrid models combining **bilateral trade pacts**, **strategic warehousing facilities**, and **investment in overseas cultivation and logistics infrastructure** in oil-rich nations. Public-private consortia like NAFED, STC, and major FMCG firms can be empowered to lead this shift toward structured sourcing, thereby insulating India's edible oil supply from geopolitical or climatic shocks.

4.4 Farmer-Centric Economics: Cost, Profitability & Adoption Barriers

While the need to scale up domestic edible oil production is well-acknowledged, the key question remains: *Is it profitable for the farmer?* Most farmers grow what offers them the highest and most reliable returns. Unfortunately, oilseeds – especially soybean – often rank low on both profitability and price security, making them a risky choice despite policy push.

Comparative data reveals this gap clearly. In **2022–23**, soybean cultivation yielded a **net return of just 20,600/ha**, while wheat offered over **61,000/ha**. Mustard fared better but still lags behind high-performing food grains. Below is a comparative snapshot:

Crop	Cost of Cultivation (₹ / ha)	Yield (kg/ha)	MSP (₹ / qtl)	Gross Income (₹ / ha)	Net Return (₹ / ha)
Soybean	30,000	1,100	4,600	50,600	20,600
Mustard	32,000	1,290	5,450	70,405	38,405
Sunflower	38,000	1,000	6,400	64,000	26,000
Paddy (Irrigated)	35,000	3,900	2,183	85,137	50,137
Wheat	36,000	4,300	2,275	97,825	61,825

Source: CACP & Directorate of Economics and Statistics, MoA&FW, 2023

Additionally, while wheat and rice enjoy MSP coverage of over **70%** in the northern belt, **oilseeds barely cross 20%**, leaving farmers exposed to open market fluctuations. Soybean and sunflower; sensitive to rainfall, pests, and soil fertility—are especially risky for smallholders lacking irrigation or storage.

To make oilseeds economically viable and scalable for farmers, a **multi-layered strategy** is essential:

- **Price Stabilisation Mechanism**: Create a dedicated fund to cushion farmers from global price shocks and ensure predictable incomes.
- **Decentralised Procurement Infrastructure**: Expand procurement in key belts like MP, Rajasthan, and Telangana with digital traceability and robust grading systems.
- **FPO and Processing Support**: Strengthen oilseed-specific FPOs, enable contract farming, and support modern extraction units for better recovery and realisation. Unless oilseeds become *as economically rewarding* as cereals, no top-down planning will bridge India's edible oil deficit. Making oilseed farming profitable is not a policy option, it's a precondition for sustainable self-reliance.

5. Strategic Pillars for Edible Oil Self-Reliance

Achieving self-sufficiency in edible oils by 2047 demands a multi-dimensional strategy built on four interlinked pillars: **crop-specific roadmaps**, **productivity enhancement**, **value chain strengthening**, and **consumer demand management**.

5.1 Crop-Specific Roadmaps

India's oilseed strategy must focus on key crops, **soybean, groundnut, mustard, sunflower, and oil palm,** which together account for over **85%** of total oilseed output. While mustard now contributes roughly **45% of domestic edible oil**, soybean remains the largest by area, but with lower productivity.

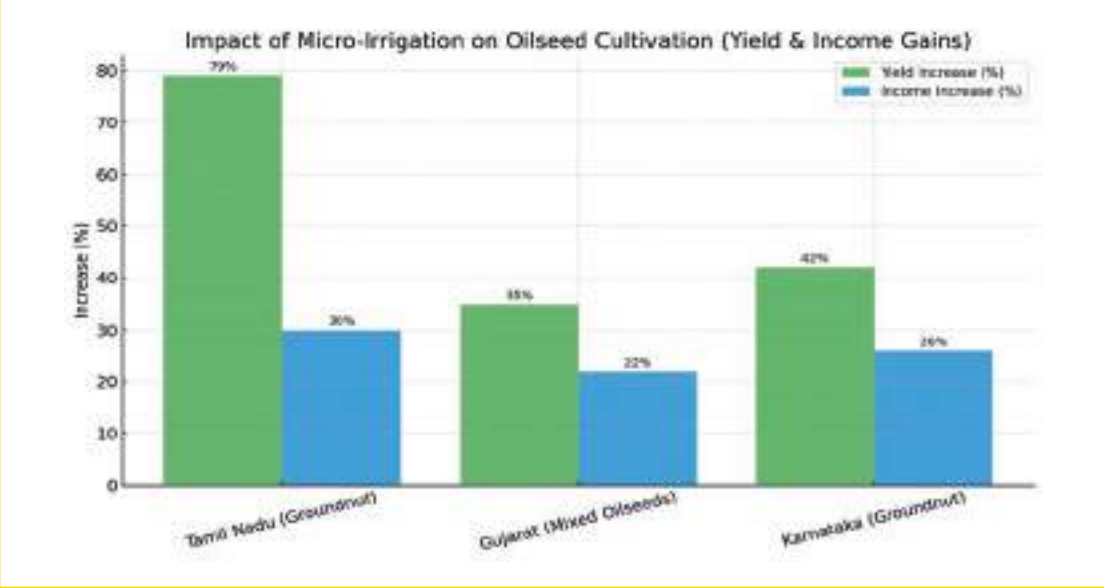
The **National Mission on Edible Oils & Oil Palm (NMEO&OP)** aims to expand palm cultivation from **3.7 lakh ha to 10 lakh ha by 2025-26**, targeting **11.2 lakh tonnes** of crude palm oil, and up to **28 lakh tonnes by 2029-30**. Price assurance mechanisms indexed to international rates have been introduced to support growers.

Meanwhile, improving **seed replacement**, promoting **hybrids in mustard**, and investing in **next-gen varieties** for rainfed crops like soybean and sunflower are critical for domestic competitiveness.

5.2 Enhancing Productivity

India's farm mechanisation stands at just **47%**, well behind China and Brazil. Oilseed-specific mechanisation is even lower. However, **micro-irrigation** has shown promising results – under the **Per Drop More Crop (PDMC)** scheme, **83.5 lakh ha** have been brought under drip and sprinkler irrigation by early 2024.

- In **Tamil Nadu**, micro-drip systems increased groundnut yields by **79%**, saved **36%** water and energy, and boosted incomes by **~26,000/acre**.
- In **Gujarat**, over **54%** of micro-irrigation users expanded oilseed cultivation, while non-users shifted away.



Such technologies, despite adoption barriers, can significantly raise oilseed yields and farmer incomes.

5.3 Strengthening Value Chains

Post-farm inefficiencies severely constrain India's edible oil ecosystem:

- **Low extraction efficiency** in outdated mills
- Inadequate storage and transport
- Non-availability of modernised extraction facility
- Weak quality assurance and branding

Modernising solvent extraction units, enabling **digital traceability** from farm to bottle, and adopting **FSSAI/AGMARK standards** with **GI tags** for traditional oils are crucial reforms.

Bringing **FPOs and MSMEs** into the processing ecosystem could reduce post-harvest losses by **15–20%**, while boosting rural incomes.

Industrial consumption of edible oil, especially in bakery, snack, and ice cream sectors are dominated by **cheap imports like palm and cottonseed oil**. With rising demand, this segment must be regulated through ingredient disclosure, reformulation incentives, and consumer awareness on the health risks of hydrogenated oils.

5.4 Managing Consumer Demand

Even with robust production, self-reliance hinges on **domestic preference** for indigenous oils. Consumer demand is currently skewed toward cheap refined oils, driven by aggressive marketing and low cost.

- **Awareness campaigns** must spotlight the nutritional benefits of mustard, coconut, sesame, and groundnut oils.
- Government schemes like **PM-POSHAN** and **PDS** can promote usage of these oils through procurement-linked distribution.
- Public health messaging should include **label-reading education**, especially around palm oil usage in processed foods.

Together, this integrated strategy can reduce India's edible oil import dependence by half, strengthen farmer incomes, and align with the broader **India@2047** vision of food, economic, and nutritional sovereignty.

6. Policy, Governance & Institutional Support: Fixing the MSP Paradox

Current Issues with MSP for Oilseeds

- **MSP exists only on paper** for most oilseed farmers, actual mandi prices are often 7–15% *below MSP*.
- **Less than 10%** of oilseeds are procured at MSP, compared to 70%+ for wheat and rice.
- Farmers **delay selling**, hoping for better prices, leading to quality loss or **distress sales**.
- **Processors prefer cheaper imported oils**, making domestic oilseed processing uneconomical.
- **Input costs are high**, but returns are low, discouraging cultivation of soybean, sunflower, mustard.

2024 Market Snapshot – Domestic vs Imports

Crop (2024)	MSP (₹ / qtl)	Mandi Price (₹ / qtl)	Shortfall from MSP	Import Oil Price (₹ / qtl equivalent)
Sunflower Seeds	7,280	6,760	–520 (–7%)	8,550
Soybean Seeds	4,892	4,300	–592 (–12%)	8,600
Mustard Seeds	5,950	5,300	–650 (–11%)	~9,000*

*Estimated based on crude oil conversion and global trends.

Sources: CACP, Agmarknet, USDA, PIB, Reuters, Indian Express (2023–24)

Projected Price Outlook by 2047 (Assuming Current Trends Continue)

Crop	Projected MSP (₹ / qtl)	Projected Mandi Price (₹ / qtl)	Imported Oil Price (₹ / qtl)
Sunflower	13,500	12,200	10,800
Soybean	9,000	7,900	10,500
Mustard	11,500	10,200	11,200

Despite MSP increase, imports may still undercut domestic prices, making Indian oilseeds less competitive unless support mechanisms are reformed.

Without correction, MSP will remain symbolic—**not protective**. But with policy realignment, and making MSP available also for small farmers across the oilseed producing areas, it can become a true **driver of edible oil self-reliance by 2047**.

7. Research & Innovation Ecosystem

India's goal of edible oil self-sufficiency by 2047 relies heavily on a strong research-to-field ecosystem. ICAR–IIOR (Hyderabad) has built over 50 years of oilseed crop data, while over **70 SAUs** and **634 KVKs** lead adaptive trials and frontline demonstrations (CFLDs). Notably, **mustard variety DRMR-1165-40** showed **23% higher yields (26.4 q/ha)**, raising incomes to over 1.07 lakh/ha.

The **private sector** is also expanding investments in **genome editing, digital agritech, and climate-resilient breeding**. The **2025 Union Budget** committed to a **gene bank with 1 million germplasm lines** and **100 resilient varieties** across oilseeds, cereals, and pulses.

However, a 2024 **Kisan Call Centre study** revealed continued farmer demand for pest control, better seed access, and market linkage, underscoring the need for improved **last-mile innovation delivery**. Integrating **IoT, mobile apps, and remote sensing** into **KVKs and FPOs** can close this gap.

7.1 Edible Oil Innovation Clusters

India must develop **"Edible Oil Innovation Clusters"** in key oilseed zones, with:

- **Targeted R&D** in mustard, soybean, sunflower, groundnut and sesame
- **Mandatory SRR >50%** and **VRR >35% by 2030**
- **Time-bound varietal upgrades** benchmarked globally
- Integrated support: mechanisation, micro-irrigation, customised advisories, and solar-powered mini-units

With current **SRRs in mustard (~35%) and soybean (~30%)**, there's urgent need to scale improved seed usage, especially compared to cereals (>70%). Cluster-based models can make R&D outcomes field-ready faster.

7.2 Role of GM Oilseed Crops

To reduce the **1.5 lakh crore annual edible oil import bill**, **GM oilseed crops** offer a breakthrough. **GM mustard (DMH-11)** has shown **up to 30% higher yields**, and its adoption could cut imports by millions of tonnes.

Globally, **29 countries** grow **GM crops across 206 million ha**, with proven gains in yield, resilience, and farm income. Yet, India faces policy delays, limited awareness, and public mistrust.

To enable adoption of GM oilseed crop India may:

- Launch a **National Mission on GM Oilseeds**
- Fast-track regulatory approvals
- Support **seed production** and farmer outreach
- Run **awareness campaigns** on GM issues to build trust

With biosafety norms already in place, **GM oilseeds are essential** to meet India's edible oil targets, ensure food security, and uphold farmer prosperity by 2047.

8. Edible Oil Self-Reliance by 2047: A Strategic Way Forward

The most critical stakeholder for India's edible oil self-reliance is the Government. While farmers, industry, and researchers all play vital roles, the Indian government emerges as the single most important stakeholder that must drive the nation toward edible oil self-sufficience by 2047. The government may formulate policy and a time bound implementation programme synchronising both, public and private efforts, balancing imports with farmers interest and with nation's health as paramount consideration.

Government's Role: Policy and Institutional Reforms

The government must create an enabling environment through strategic interventions. Linking minimum support prices to global benchmarks would prevent imports from undermining domestic cultivation. Strengthening farmers' incentives begins with effective MSP implementation – currently less than 25% of oilseeds are procured at MSP compared to over 70% for rice and wheat. Expanding oilseeds procurement in key states like Madhya Pradesh, Rajasthan and Gujarat, supported with price stabilization funds, would protect

farmers from global price volatility. Simultaneously, redirecting subsidies from water-intensive crops to oilseeds in water-stressed regions would encourage much-needed crop diversification. Also promoting cultivation of oilseeds crop in otherwise conventional rice-wheat areas will help in increasing productivity and production as these areas have assured irrigation and given the self-sufficiency in cereal production, the productive land can be diverted for oilseeds production.

Research and development requires urgent attention to bridge India's yield gap of 1.2 tonnes/ha compared to global benchmarks of 2.5-3 tonnes/ha. Re-focusing ICAR funding on high yielding soybean varieties. Considering approval of GM oilseeds like DMH-11 mustard, which shows 30% higher yields, could be transformative. Expanding micro-irrigation coverage to 10 million hectares of oilseeds by 2030 through the "Per Drop More Crop" scheme would significantly boost productivity.

On the trade front, India must develop a long-term import strategy while reducing vulnerability. Diversifying sources to include Argentina for soybean, Ukraine for sunflower, and African nations for palm oil can mitigate supply risks. Establishing a 2-3 MMT edible oil buffer stock and implementing dynamic import duties would provide crucial price stability during global market fluctuations.

Key Actions:

- Linking MSP prices to global soybean price benchmarks to avoid imports.
- Effective MSP procurement implementation – Coverage of at-least 50% acreage.
- Public-Private efforts to focus on developing high yielding oilseeds varieties.
- Adoption of GM oilseeds production
- Developing long term country-crop specific import strategy.
- Establishing 2-3 MMT buffer stock of Edible oil in the country.
- Align MSP, procurement, and R&D to meet ~46.5 MMT projected edible oil demand by 2047 (based on ~19 kg/capita for 1.65 billion people), while promoting domestic nutritious oils in line with ICMR's 9.1 kg/capita health guideline.

Industry Transformation

The processing sector needs modernization, replacing outdated expellers with high-recovery solvent extraction plants to improve efficiency.

The food industry must be incentivized to reformulate products using indigenous oils like mustard and groundnut instead of palm oil. Consumer awareness plays a pivotal role in driving demand for domestic oils. Clear labelling regulations should highlight palm oil content, while public distribution systems and midday meal schemes can promote traditional oils. Public health campaigns should educate consumers about the nutritional benefits of indigenous oils versus refined palm oil.

Key Actions:

- Food industry must reformulate products using indigenous oils (mustard and groundnut).
- Setup high-recovery solvent extraction plants to improve efficiency.
- Labelling should highlight palm oil content for highlighting healthier options.

Empowering Farmers: Productivity and Profitability

For farmers, adopting improved agronomic practices is essential to make oilseed cultivation competitive. Strengthening market linkages is equally critical to address post-harvest losses of 7-10%. Expanding Farmer Producer Organizations would enable collective bargaining and processing, while developing local oil extraction units would reduce dependence on large refiners.

Expanding PM Fasal Bima Yojana coverage with subsidized premiums for oilseed farmers would create a safety net against climate variability and market uncertainties.

Key Actions:

- Adoption of high yielding soybean hybrids.
- Strengthening Market linkages through FPO.
- Utilizing PM-Fasal Beema Yojana crop insurance to offset losses due to climate variability.

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Notes

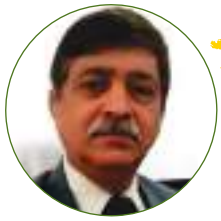
Governing Council: KRISHI ANUSANDHAN & KISAN VIKAS FOUNDATION

Vijay Sardana
Chairman, Governing Council

IIMA Alumnus & Advocate, Supreme Court of India, NGT & Delhi High Court; Spl. in Techno-legal, IPR & Contracts Matters; Corporate Governance Trainer for Independent Directors; Member-Corporate Boards & Expert Committees

N.K. Arora
Secretary, Governing Council

An accomplished professional with 45 years of experience in Agri Input industry with having diverse leading role. Holding unanimously elected position of President-Agri Alumni Association of Pantnagar since its inception in 2008



Dr. Atanu Purkayastha
Agriculture & Farmers Welfare

MBA from the University of Strathclyde, Glasgow, UK and PhD from IIT Kharagpur on Land Reforms and Livelihood Generation. Served with the Government of India as Director and Joint Secretary in the Ministry of Home Affairs, Ministry of Agriculture and Cooperation and as Secretary, Central Information Commission.

Anil Jaysing Ghanwat
Farmer Representative

Anil Ghanwat (B.Sc. Agriculture), 63 years old, is a farmer from SriGonda in Ahmednagar district in Maharashtra. Since 1985 he has been involved with the Shetkari Sanghatana

Dr. Arvind Kapur
Seed Expert

Ph. D in Plant physiology bearing over 3 decades of experience in National and Multinational Seed Industry. He is also a prominent member of various business associations like CII, FICCI, Assocham, and PHDCCI, chairs of the APSA IP Committee

Dr. Ramendra Singh
Crop Nutrition

Dr. Ramendra Singh, a Soil Scientist, has over 45 years' experience in Natural Resource Management (NRM) for sustainable agriculture .

Dr. R.K. Malik
Agronomist

Dr. Ram Kanwar Malik, Ph.D in Agronomy is a renowned Agronomist with more than 45 years of experience. He has successfully implemented many projects in association with CIMMYT, IRRI, ACIAR, DFID, ICAR (NATP and NARP) and FAO

Dr. Vasant P. Gandhi
Economist

Ph.D. from Stanford University, MBA (PGP) from IIM Ahmedabad (IIMA), formerly he was Professor and NABARD Chair Professor at IIMA, and Founder Chairman Post-Graduate Programme in Food and Agribusiness Management, which is currently ranked no.1 in the world

Dr. R.S. Sodhi
Dairy & Co-operative

Dr. R.S Sodhi, President, Indian Dairy Association, Delhi .
Ex Managing Director GCMMF (Amul)
Chairperson, NIFTEM -T

Nimish Gangrade
Media Representative

Nimish Gangrade is an experienced professional in the field of Agriculture. He is currently Director at Krishak Jagat – The National Agriculture Newspaper. He is an accredited journalist by the Government of India.

जय विज्ञान • जय अनुसंधान • जय जवान • जय किसान

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