

India's Agri Export Opportunity: Can We Become the World's Food Basket?

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India's agricultural exports reached \$51.9 billion in 2024-25, yet the country commands only about 2.5% of global agri trade, proof that the "food basket of the world" ambition is achievable but currently blocked by structural gaps in competitiveness, quality, logistics, and branding. Below is a fully integrated, data-driven article combining a India vs. Netherlands benchmark, policy recommendations, and the original four-pillar analysis.

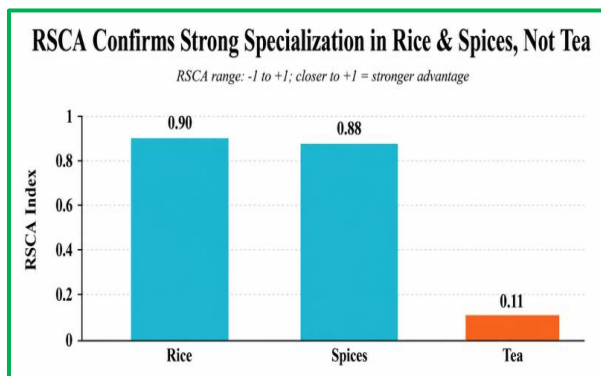
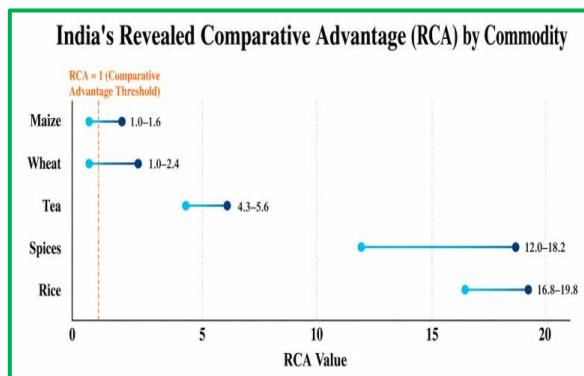
The Scale of the Opportunity

India is the world's largest producer of milk and pulses and ranks among the top two producers of rice, wheat, sugarcane, fruits, and vegetables, yet it ranks only 11th globally in agri exports. This mismatch between production leadership and export rank is the central paradox of India's agribusiness story.

- Agri exports grew from \$3.35 billion (1990-91) to \$51.9 billion (2024-25), a multi decade CAGR of roughly 6%.
- Agri products contributed 11.86% of India's total merchandise exports of \$437.70 billion in 2024-25.
- APEDA monitored products alone accounted for \$28.6 billion, or 55% of total agri exports.
- Top export destinations are USA, UAE, China, Bangladesh, Saudi Arabia, Vietnam, Iraq, Malaysia, Indonesia, and Benin.

Export Competitiveness- Where India Wins and Loses

Revealed Comparative Advantage (RCA) and Revealed Symmetric Comparative Advantage (RSCA) indices show India has deep, durable strength in a narrow set of commodities but weak or declining competitiveness elsewhere. The top APEDA exported commodities in 2024-25 are- Non-Basmati rice (\$6.53 bn), Basmati rice (\$5.94 bn), and buffalo meat (\$4.06 bn) confirm this concentration in a handful of bulk categories rather than diversified, high value exports. Fresh fruits and vegetables together contributed only about \$1.82 billion, with India's global horticulture export share stuck near 1%.



Quality Standards- The Compliance Gap

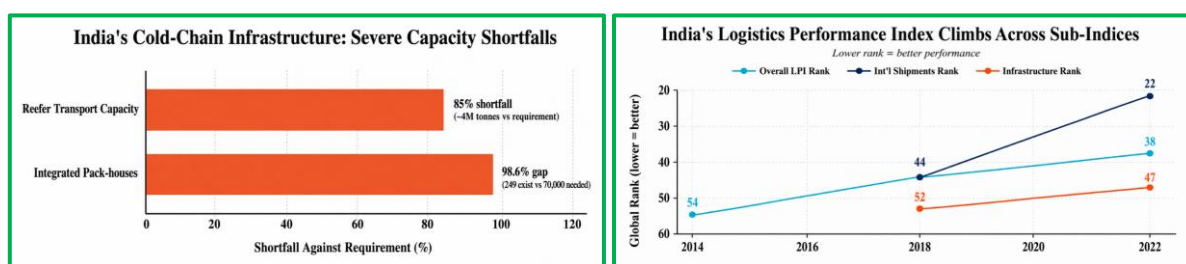
India's Maximum Residue Limit (MRL) and food safety regime is considerably less stringent than in its key import markets, which drives frequent rejections at ports in the EU, Japan, and other developed economies.

- Codex Alimentarius (international benchmark) covers 10,651 MRL standards across 464 products, QUAD countries (US, EU, Japan, Australia) impose substantially more.
- Developed country MRL stringency averages 2.05 times the Codex baseline, India sits near the bottom among nine countries compared, at about 1.5 times stringency only Malaysia is lower.
- India's BIS maintains over 20,000 voluntary standards but just around 146 mandatory ones versus binding enforced regulation in importing countries.
- Specific gaps- Milk faces 85 additional MRL parameters abroad beyond Indian norms, similar shortfalls exist for Chickpea (61), Pepper (39), Soybean (34), Guar (32), and Corn (28).

This regulatory laxity domestically becomes an export liability abroad; shipments that clear Indian standards often fail at the border of premium markets.

Logistics and Cold Chain- the Infrastructure Bottleneck

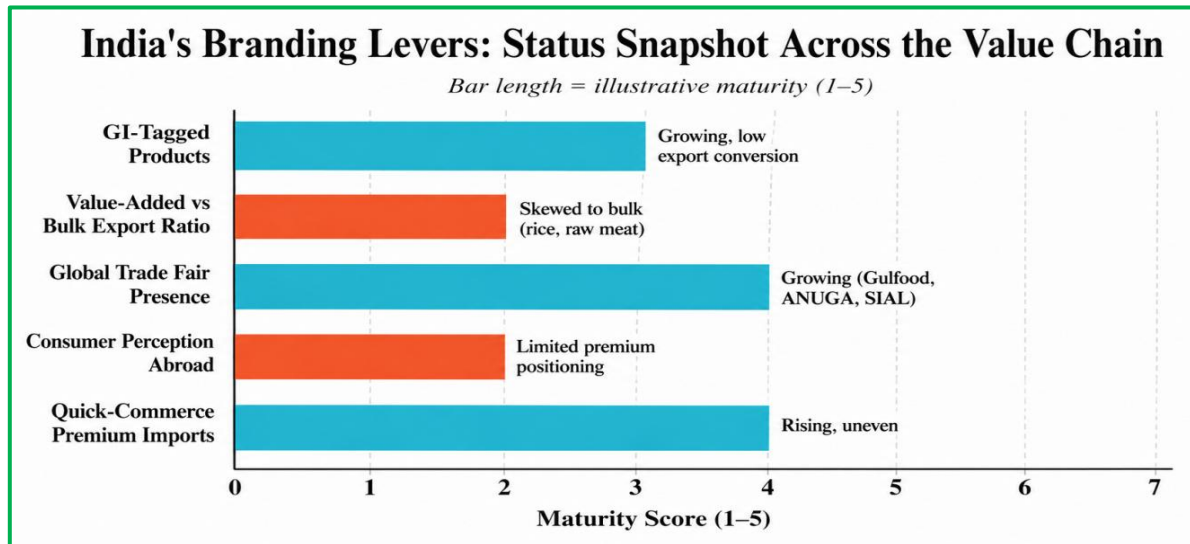
Logistics remains the single most decisive constraint on India's export ambitions, particularly for perishables where the margin for delay is measured in hours not days. India's cold storage capacity stands at roughly 37-40 million tonnes, nominally the world's third largest after the US and China, yet over 90% of this capacity is single commodity, Potato-focused and concentrated in just a handful of states like Uttar Pradesh, West Bengal and Punjab, leaving fruits, vegetables, dairy, and export grade produce with minimal dedicated infrastructure. The deeper problem is structural fragmentation- over 90% of the cold chain logistics sector is privately owned and fragmented, reefer vehicles are in chronic short supply and prone to breakdowns and integrated pack houses for first-mile pre-cooling, cleaning and grading remain severely underdeveloped near farm gates. As a result, existing cold storage can accommodate only about 11% of India's total perishable produce and estimates suggest the country will need upward of Rs.50,000 crore in fresh investment by 2030 just to close the infrastructure gap. This isn't merely a capacity shortfall but an execution and distribution problem, capacity clusters around production hubs rather than demand centers or export corridors, leaving the last mile stretch between hub and retail as the weakest and most loss prone link in the entire chain



Branding- from Commodity Supplier to Value Brand

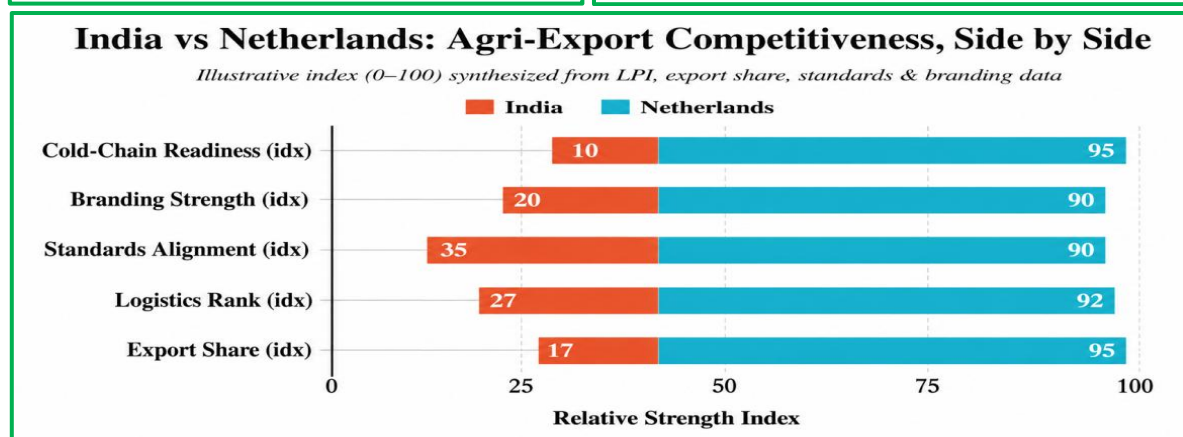
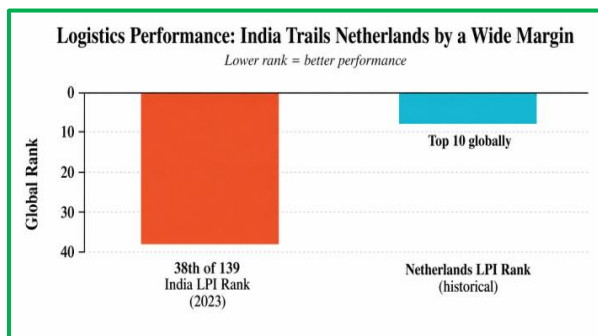
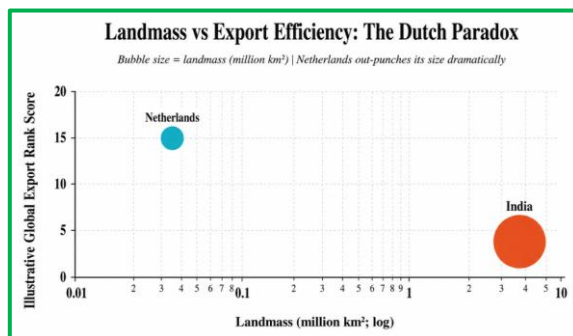
India exports commodities not identity, a structural weakness that sits at the heart of its value capture problem. While the country dominates in raw volumes of rice, spices, and buffalo meat, it exports these largely unbranded, ceding branding, packaging, distribution and premium positioning to importing country intermediaries who repackage and resell them at multiples of the original farm-gate price. This stands in sharp contrast to countries like Thailand, which has methodically built "Product of Thailand" as a globally recognized identity spanning Jasmine rice, Coconut milk, and Curry paste, and the Netherlands, whose horticulture sector uses coordinated club branding, brand equity management and sector wide marketing bodies to sell flowers and produce as premium, traceable goods rather than fungible commodities. India's fragmentation compounds the problem: each state markets its

own produce independently, global consumers have low awareness of India specific superfoods like Makhana, Moringa, and Millets, and inconsistent packaging and quality certification make international retailers hesitant to position Indian goods as premium. The result is a self reinforcing cycle- India often imports finished branded products at a premium while exporting the raw inputs cheaply, effectively subsidizing other countries' brand equity. Closing this gap requires a coordinated national branding push, anchored in GI-tag utilization, consistent quality standards, and traceability systems, so that India's agricultural abundance translates into recognized, premium priced identity rather than anonymous bulk supply.



India vs. Netherlands- A Benchmark in Contrast

The Netherlands, despite a fraction of India's arable land, is the world's second largest agri exporter by value, offering an instructive comparison on how logistics, standards, and branding compound into export success. This comparison underscores that India's disadvantage is not agronomic capacity but the compounding effect of weaker standards, thinner cold chain infrastructure and underdeveloped branding- all fixable through policy and investment rather than requiring new production capacity.



Policy Recommendations

Translating these data into action requires targeted interventions across each pillar rather than broad-based subsidies.

- Harmonize MRL and food safety standards progressively toward Codex and EU benchmarks to reduce border rejections, starting with high export commodities like Grapes, Chillies and Basmati rice.
- Close the packhouse and reefer transport gap through public-private investment, prioritizing perishable export corridors (Grapes-Nashik, Mangoes-Ratnagiri, Onions-Maharashtra) identified via NCCD gap assessments.
- Diversify the export basket away from bulk rice and buffalo meat toward value-added processed fruits, juices and branded horticulture, where India's RSCA is currently weak but production capacity exists.
- Scale GI-tag utilization and international trade fair presence (Gulfood, ANUGA, SIAL) to build consumer facing brand equity rather than relying solely on trader-to-trader commodity sales.
- Leverage the LPI momentum (38th to top 25 ambition) by extending digital logistics reforms and tracking and tracing systems specifically to cold chain and agri export corridors.
- Build vertically integrated export clusters modelled on the Netherlands' auction and cooperative system, linking farmer clusters directly to pack houses and ports to shorten the farm-to-export cycle.

Conclusion

India's path to becoming the world's food basket hinges on converting production dominance into export dominance and the data makes clear this is a solvable not structural problem, with agri exports at \$51.9 billion but only a 2.5% global share, India's bottleneck isn't farm output, it's the compounding weaknesses across four interlinked levers- narrow export competitiveness concentrated in rice, spices, and buffalo meat while fruits, vegetables and pulses lag, lax quality standards that trigger rejections in premium markets since India's MRL stringency trails most comparator nations, a cold chain infrastructure gap so severe that 99.6% of required pack houses and 85% of reefer transport capacity simply don't exist, and a branding deficit that keeps India selling bulk commodities rather than consumer recognized products, unlike the Netherlands' value added horticulture model. The Netherlands benchmark proves land size isn't the constraint- coordinated logistics, strict standards compliance and strong branding are. India's rising Logistics Performance Index rank (38th, up from 54th in a decade) shows the reform playbook already works when applied deliberately. The task now is extending that same rigor to cold chain investment, standards harmonization, export basket diversification and brand building simultaneously, rather than treating them as separate problems.

References (Hyperlinked)

1. Annual Administrative Report- APEDA
2. Enhancing Competitiveness of Indian Agri Exports- Yes Bank
3. World Agriculture Trade Overview- APEDA
4. Agricultural Trade Performance of India: Insights into Growth and Competitiveness
5. Dynamics of India's Agricultural Export Competitiveness: A Commodity-Level RSCA Approach
6. Fresh Fruits & Vegetables- APEDA
7. Logistic Performance Index
8. India ranks 38 out of 139 countries on the World Bank's Logistics Performance Index Report 2023
9. Post-production Agri-logistics: maximising gains for farmers