FATHER FARMER

The Founding Thesis

Nutritional food grain will become a luxury within a decade.

Father Farmer is building the sourcing chain — before it cannot be built.

Every number in this document is sourced. Every claim is documented.

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Tamaspura Village · Jhajjar · Haryana · fatherfarmer.life

Father of Jasvita. Born 4th November 2021. 900 grams.

1. The Numbers: Land Decline & Population Growth

India's net sown agricultural land peaked at around 140–141 million hectares in 1970–71. Since then, it has stagnated and declined. From 1990–91 to 2014–15, Government of India Land Use Statistics record a reduction of 1.92% in net sown area, with a negative CAGR of 0.08% per year. Total agricultural land fell from 180.62 million hectares in 2018–19 to 180.11 million hectares in 2021–22.

In 1989 — the year Ravit was born — India's population was 84 crore. In 2021 — the year Jasvita was born — it was 140 crore. The population grew by 67 crore while the land shrank.

Less land. More mouths. The per capita agricultural land has been falling every decade since 1951. That is the pressure the food system is under.

1.92%	Decline in net sown area: 1990–91 to 2014–15 (Govt of India Land Use Statistics)
-0.08%/yr	Negative CAGR in net sown area since 1990 — a documented, directional decline
84 Cr → 140 Cr	India's population 1989 to 2021 — +67 crore as the land shrank
0.32 ha	Per capita agricultural land in 2001 — falling every decade since 1951

Sources: Govt of India Land Use Statistics 2022–23 (DESAGRI); PIB India Agricultural Land 2024; ResearchGate Net Sown Area Decline Study 1990–2015

Every infrastructure project — highway, real estate, industrial corridor — takes agricultural land that does not come back. The expansion of urban India has been built on the contraction of cultivable India.

2. The Soil That Remains Is Depleting

Less land is one part of the problem. The other part is what is happening to the land that remains.

1% → 0.3%	Soil Organic Carbon in intensively farmed areas — fallen 70% over 70 years
5.3 billion tonnes	Topsoil India loses annually to water and wind erosion
<5%	Indian soils with sufficient nitrogen — despite Punjab applying 247 kg fertiliser/ha
1:10 → 1:2.7	Fertiliser efficiency crash from the 1970s to today
90%+	Punjab and Haryana soils classified as deficient in key nutrients

Sources: Drishti IAS, Soil Health Crisis (2024); Down To Earth, Punjab Dead Soil (Oct 2024)

In the 1950s, 16% of soil nutrients came from organic sources. Today, over 90% come from inorganic fertilisers. The Green Revolution solved hunger but extracted from the soil faster than it could recover.

A crop grown in depleted soil has a different mineral profile than a crop grown in living soil. The seed is the same. The nutrition is not.

3. The Water Is Going

5.41 metres	Average groundwater level decline in Haryana: June 2014 to June 2024
88 blocks	In Haryana categorised as over-exploited — extraction exceeds annual availability
500 feet	Depth Punjab farmers now drill to find water — 80 feet sufficed a generation ago
230 km³	India's annual groundwater extraction — highest of any country on earth

Sources: Haryana GWRE Report 2024 (CGWB); Zenodo, Groundwater Level Decline Punjab (Sep 2024)

Punjab — 1.57% of India's geographical area — supplies 27–40% of India's rice and 55–65% of its wheat, entirely on unsustainable groundwater. When the water becomes scarce, farmers grow what survives — not what nourishes most.

4. The Policy Response: GM Crops

2002	Bt Cotton approved — only GM crop commercially grown in India for over 20 years
2022	GM Mustard (DMH-11) received environmental clearance — pending Supreme Court
2025	Supreme Court called for comprehensive national GM crop policy — hearings ongoing
July 2025	US trade negotiators pressuring India to open agriculture market to GM crops

Sources: Vajiramandravi (May 2025); Nature (June 2025); ISAAA (2024)

GM crops solve the yield problem. They do not solve the nutrition problem. A crop engineered for pest resistance is not engineered for curcumin content, iron density or omega-3 profile.

The food will be there. The nutrition may not be.

5. The Supplement Industry Is the Evidence

■3.5 lakh crore+	India's nutritional supplements market projected by 2030
12.9% CAGR	Annual growth rate of India's dietary supplements market 2025–2034
Iron, Vitamin D, B12	Fastest-growing categories — each a nutrient once delivered by food
"Decline in nutrients from daily diets"	Grand View Research 2024 — primary driver of supplement market growth

Sources: Grand View Research India Nutritional Supplements (2024); Astute Analytica (2024)

The supplement industry does not cause this problem. It is the downstream market created by upstream food failure. Its own research says so: growth is driven by 'decline in nutrients from daily diets.'

Nobody chose to need a water purifier. The water became undrinkable and the market responded. **The supplement is the food purifier. It exists because the food stopped working.**

6. Early Production Is Incomplete Development

Ravit watched his daughter arrive seven months into a nine-month process. She came with the form of a child but not the full development that nine months would have given her.

A tomato picked green arrives with the form of a tomato — but not the lycopene that natural vine-ripening produces. A wheat kernel roller-milled for 12-month shelf life arrives as flour — without the germ carrying 23% of the protein. A honey heated above 70°C arrives as a sweetener — without the methylglyoxal that made it medicine.

The form is present. The substance is not fully developed. Early production is incomplete development.

> *"The question Father Farmer is answering is not: where can I find better food? The question is: who is building the chain that makes better food possible — before the chain cannot be built?"*

7. The Window: Approximately One Decade

31%	Decline in average Indian farm landholding: 1.08 ha (2016–17) to 0.74 ha (2021–22) in five years
26 SKUs	Father Farmer actively sourcing across 9 regions — Kashmir to Kerala, Northeast to Gujarat
~10 years	Estimated window to build this sourcing network before heritage farming becomes unviable

Sources: NABARD Rural Financial Inclusion Survey 2021–22; Father Farmer sourcing network (May 2026)

The named farmers who grow Kala Namak rice in Kushinagar are ageing. The tribal communities of Jaintia Hills face economic pressure to switch to commodity crops. The knowledge of bilona churning and stone grinding is carried by people who will not be replaced by the industrial food system.

The named farmers exist today. The GI-tagged fields exist today. The heritage varieties exist today. In ten years, this infrastructure will either exist or it will not. There is no building it later.

> *"Father Farmer is an ark. Not for nostalgia. For what comes next." — Ravit, Founder*

Sources & References

1. Govt of India — Land Use Statistics at a Glance 2022–23 (DESAGRI). Net sown area trend data.

2. PIB India — Agricultural Land Use Statistics 2024. Total agricultural land: 180.62M ha (2018–19) to 180.11M ha (2021–22).

3. ResearchGate — Net Sown Area Decline Study 1990–91 to 2014–15. 1.92% decline; negative CAGR 0.08%/year.

4. Shamsher Singh — Natural Resources Management for Sustainable Agriculture Production (2022). Per capita land 0.32 ha in 2001.

5. Drishti IAS — Soil Health Crisis and India's Path to Recovery (2024).

6. Down To Earth — Punjab: Dead Soil in India's Food Bowl (October 2024).

7. Haryana Ground Water Resource Estimation Report 2024 (CGWB).

8. Zenodo — Assessment of Groundwater Level Decline in Punjab (September 2024).

9. Vajiramandravi — India's Push for GM Food Crops (May 2025).

10. Nature — India Must Develop a GM Crop Plan Based on Science (June 2025).

11. Grand View Research — India Nutritional Supplements Market Report 2024.

12. NABARD — Rural Financial Inclusion Survey 2021–22.

13. Govt of India Population Data — India population 1989 (~84 crore) and 2021 Census (140 crore).