GFST

GFST LIVESTOCK ACCELERATOR

PASHUDHAN ATLAS

India's Livestock Wealth, Mapped in Data

~100 Data Stories across various sub-sectors - economy, breeds, dairy, meat, eggs, health, fodder, technology, finance, trade and states - **every figure source-tagged, every chart built to be read in under a minute.**

6 Chapters	**~10** Sub- sectors	**2** Data Stories per week	**~100** Data Stories per year

Leadership

Shri SP Tucker, IAS (Retd), Former Chief Secretary, GoAP & Vice-Chairman, GFST

Shri Ch Kutumba Rao, Former VC-AP State Plg Board, Vice-Chairman (P4) & Director, GFST

Shri Sanjay Gupta, IFS (Retd), Former Plg Secretary, GoAP and CEO, GFST

FOREWORD

A Sector That Deserved Better Data

India's livestock sector supports over eight crore farmers, contributes ₹ 15 Lakh Cr (roughly 5.5% of national GVA), and has grown faster than almost any other part of the Indian economy over the past decade — yet for most stakeholders, from state policymakers to individual entrepreneurs, a clear, current, trustworthy picture of the sector has been surprisingly hard to find.

The Pashudhan Atlas exists to close that gap. Every one of the Data Stories traces back to a named, dated source — or a clearly cited government or peer-reviewed release. Where the data didn't exist to answer a question we thought mattered, we said so rather than filling the silence with a plausible-sounding number.

What we found surprised us more than once. Kerala generates nine times more livestock value per animal than Jharkhand — not because Kerala's animals are inherently superior, but because of decades of extension services, infrastructure, and farmer education that Jharkhand has not yet had the chance to build. These are the kinds of findings that don't show up in a headline GDP number, but that matter enormously to anyone actually trying to build something in this sector.

This is what data can do when you let it speak honestly: it doesn't just confirm what you already believed. It surprises you. It complicates easy stories. It points toward real, specific opportunities that a single national average would hide completely.

This is a beginning, not a finished picture. We invite readers — government departments, researchers, cooperatives, investors and farmers alike — to use this Atlas, question it, and tell us where it falls short. That is how it gets better.

Because behind every one of these numbers is someone's morning, someone's livelihood, someone's decade of work. We owe that the respect of getting it right.

How To Read The Pashudhan Atlas

UNDERSTAND THE 2-PAGE DATA STORY FORMAT

Every Data Story Follows One Simple, Consistent Format

1st Page

THE STORY

- Headline & One-line gist
- 5 KPI Dashboard
- One main Infographic built to be read in under a minute

2nd Page

THE EVIDENCE

- Five numbered findings
- A full Data Table
- Sources & References

TRUST THE DATA

Our Data Discipline is non-negotiable

Every Number has a Source

The Source and Year are clearly mentioned with every statistic.

Years Are Never Mixed

Census Data, Surveys and Estimates are always labelled separately.

Unknowns are Declared

Where data gaps exist, the Atlas identifies them openly.

KNOW THE EVIDENCE BASE

The Atlas is built only on credible and verifiable sources

Official Statistics

- BAHS, DAHD, GoI
- 20TH Livestock Census
- Annual Admin Reports
- MoSPI National Accounts / State GVA Series
- RBI - KLEMS Employment Database
- World Bank
- FAOSTAT

Livestock Research & Genetics

- ICAR-NBAGR Breed Registration
- ICAR-NDRI, IGFRI & ICAR-NIVEDI research publications
- Locally maintained breed databases
- Vety Council of India & State Vety Councils
- Vety Universities
- NGOs

Trade & Policy Sources

- APEDA
- PIB Press Releases
- Lok Sabha/Rajya Sabha, Assembly replies
- Govt of India official reports
- NECC
- NDDB
- Coop / Private Dairies

Scientific Evidence

- Peer reviewed Journals (Lancet, Scientific Reports and Others)

e-Version Available

PDF format for Mobiles & Laptops
Online @ https://gfst.in

Social Flyers

Available on all Social Media Platforms of GFST

For Commercial Enquiries / Sponsorship

admin@gfst.in

CONTENTS
PASHUDHAN ATLAS

01

India’s Livestock Economy: From ₹15 Lakh Crore to a $1 Trillion Opportunity

#00 From Sunrise to Sunset, an Animal Walks Beside 140 Cr Indians
#01 India’s Livestock Sector : Ten years to $1 trillion
#02 Livestock Stability Ranking : India beats States
#03 Livestock: A Recession-Resilient Growth Engine
#18 India’s ₹15-Lakh-Crore Livestock Economy
#19 Livestock Takes A Bigger Agri Slice
#20 Where Does Every ₹100 of Livestock Output Go?
#21 Making of the ₹15-Lakh-Crore Livestock Economy

- To Be Announced....

02

Livestock Landscape: Breeds, Population Trends and Global Standing

#04 Just 6 of 14 Species Hold 83% of India’s Breed Diversity
#05 1 in 6 Assessed Breeds Is At Risk - Camels Face It Most
#06 India’s Livestock Portfolio Is Shifting

- To Be Announced....

03

Milk, Meat and Egg Revolution: From Farm Livelihoods to Global Leadership

#07 Milk Revolution: From Scarcity to World’s Largest Producer
#08 India’s Milk Growth Rate Has Nearly Halved
#09 India’s Largest All-Women-Owned Dairy (SHREEJA)
#10 India’s Milk Map Is Quietly Being Redrawn
#11 How India Keeps Its Milk Honest
#12 India’s Nutrition Security Heatmap
#13 India’s Egg Revolution - from 183 cr to 14,911 cr eggs

- To Be Announced....



CONTENTS
PASHUDHAN ATLAS

04

Strengthening Livestock Ecosystem: Vety Care, Fodder, Welfare & Infra

#14 How Far Is Nearest Vet?

#15 Animal Diseases: How Often, How Deadly

- 15 Years From Law to First Election
- India’s Animal Welfare Framework
- To Be Announced....

05

Powering India’s Livestock Future: Credit, Technology and Innovation

#16 India’s Livestock Tech Stack Goes Live

- Livestock Holds Just 6% Of India’s Farm Credit Cards
- What India Exports from Livestock
- To Be Announced....

06

India’s Livestock Mosaic: States, Strengths and Specialisations

#17 Uttar Pradesh: Biggest Herd, Biggest Headroom

- Rajasthan: The Pastoral Powerhouse
- Maharashtra: A Diversified Livestock and Poultry Economy
- To Be Announced....

From Sunrise to Sunset, an Animal Walks Beside ~140 Crore Indians

From the first milking before sunrise to the last meal after dark, 53.68 crore animals and 85.18 crore birds quietly walk through every Indian day - feeding, sustaining and standing beside the people who depend on them.

# 1	₹ 15.06 Lakh Cr	8 CRORE	70%	₹ 63,474 Crores - 2024-25
WORLD MILK PRODUCER	**LIVESTOCK GVA, 2023-24**	**RURAL HOUSEHOLDS**	**OF DAIRY WORKERS ARE WOMEN**	**LIVESTOCK EXPORTS**
2479 Lakh MTs; ~25% of everything the world drinks	5.5% of India's entire economy	Depend on Livestock for income and resilience	The quiet backbone of rural India's livestock economy	India's animals reach kitchens on every continent



And behind every animal that walks beside 141.3 crore Indians, someone walks beside the animal.	83,017 Registered Veterinary Doctors	67,596 Veterinary Institutions

Source: Department of Animal Husbandry & Dairying, Basic Animal Husbandry Statistics 2025; DAHD Annual Report 2025–26; 20th Livestock Census 2019; Parliamentary Questions, Lok Sabha/Rajya Sabha; Indian Veterinary Practitioners Register; Census of India Projections- 2025.

Why This Atlas Exists

00

Livestock rarely makes headlines the way crops, industry or services do. Yet from the moment the sun rises to the moment it sets, an animal is quietly present in the life of nearly every Indian — feeding families, sustaining livelihoods, and building an economy few fully see. This Atlas exists to bring that quiet companionship into the light, one data-backed story at a time.

The scale is genuinely difficult to hold in one's head: 53.68 crore animals and 85.18 crore birds — more than any single other country's population on Earth except China and India itself.

India leads the world in milk by a margin no other country approaches: 2479LMTs, roughly a quarter of everything the planet drinks, achieved not through industrial mega-dairies but through the aggregate effort of tens of millions of smallholder families.

This is fundamentally a livelihood story before it is a production story: roughly 8 crore rural households depend on livestock for income and resilience, with women forming an estimated 70% of the dairy workforce — livestock's economic value is inseparable from who actually does the work.

The sector's ₹15.06 lakh crore GVA makes it one of India's most consistent economic engines: livestock has grown every single year on record, including 2020-21, the one year India's overall GDP contracted — a genuine buffer against national economic shocks.

And behind every animal, a human quietly keeps watch: 83,017 registered veterinary doctors and 67,596 veterinary institutions form the unseen support system that keeps this entire economy healthy — every litre of milk, every meal, every rupee traded ultimately depends on the care given long before any animal reaches a farmer's gate, let alone a family's table.

Data Table

Dimension	Indicator	Value
Foundation	Total livestock population (2019)	53.68Crores
Foundation	Poultry population (2019)	85.18 Crores
Dawn — Milk	Production / PCA / World Rank	2479 LMT / 485 gr/day / #1
Morning — Eggs	Production / PCA / World Rank	14,911 Cr / 106/yr / #2
Evening — Meat	Production / PCA / World Rank	105.0 LMT / 7.51 Kg/yr / #4
Economy	Livestock GVA (2023-24)	₹15.06 lakh crore
Economy	Share of Total & Agri+Allied GVA	5.5% / 30.9%
Trade	Total Livestock Exports (2024-25)	₹63,474 crore
Veterinary Care	Registered Vety Doctors / Vety Institutions	83,017 / 67,596

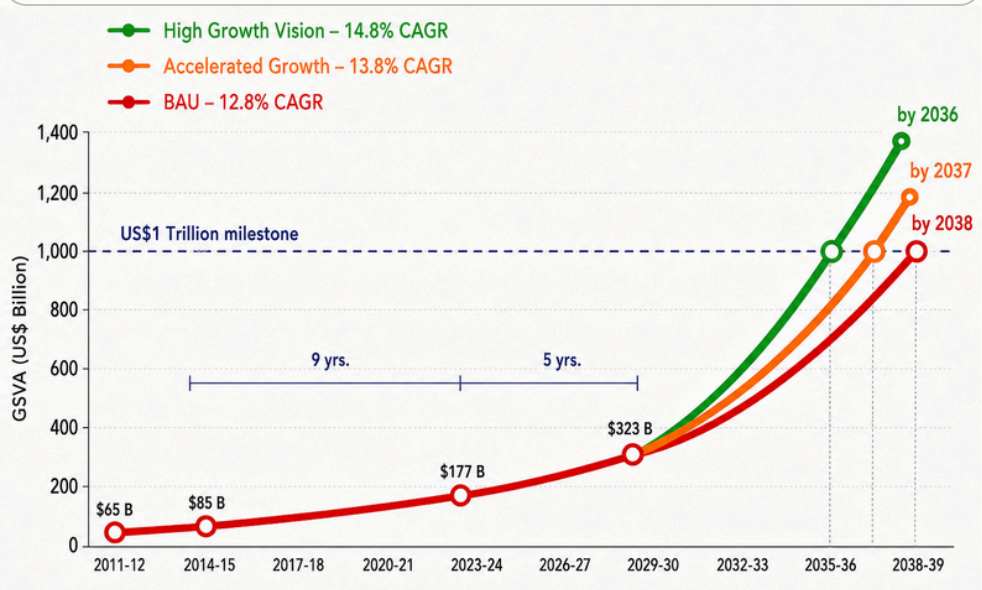
Source: Department of Animal Husbandry & Dairying, Basic Animal Husbandry Statistics 2025; DAHD Annual Report 2025–26; 20th Livestock Census 2019; Parliamentary Questions, Lok Sabha/Rajya Sabha; Indian Veterinary Practitioners Register; Census of India Projections- 2025.

INDIA'S LIVESTOCK SECTOR
Ten years to $1 trillion

01

Three growth pathways, one destination : even the conservative scenario puts livestock's dollar value past $1 trillion by 2038-39 — the optimistic case gets there by two years sooner (2036) on its fastest path.

$177	12.8%	14.8%	2036-38	$4.2
Billion USD				Trillion USD
STARTING POINT	**BAU - CAGR**	**HIGH-GROWTH CAGR**	**$1 Tr WINDOW**	**BY 2047 @ VIKSIT BHARAT**
2023-24, all three scenarios begin here	Base-case, continuation of the trend	If reforms and productivity gains compound	Across all three pathways - just 3 years apart	High-Growth pathway



A 1-2 % point acceleration in CAGR can advance the US$ 1 trillion milestone by 1-2 years.

- **Doubling is speeding up** — $85B to $177B took 9 years; the next double, to $323B by 2028-29, takes only 5 years.
- **A milestone every 5 years:** ¼-trillion by 2026 · ½-trillion by 2032 · $1 trillion by 2036.
- **Milestone locked for 2036–2038 —** full-potential growth arrives 2 years ahead of BAU @ 14.8% CAGR.

Source: BAHS 2025, DAHD, GoI; Livestock GVA in US$ computed from MoSPI current-price series; Forward projections (2024-25 onward) are GFST scenario modelling at fixed CAGR assumptions, not official government forecasts.

The $1 Tr Milestone Is Near-Certain

01

The trillion is not one big push — it is many gains compounding. Reaching it, and going beyond, depends on turning the various dials across the value chain, state by state.

Same starting line, three speeds: all three scenarios begin at the same $177 billion (2023-24) — they diverge only in the assumed compound annual growth rate.

The gap is smaller than it looks: the difference between 12.8% and 14.8% CAGR sounds modest, but compounded over 15 years it moves the $1-trillion crossing by two full years.

A three-year landing window: High Growth crosses $1T in 2036-37, Accelerated in 2037-38, BAU (the conservative base case) in 2038-39 — a tight cluster, not a wide guess.

Beyond the trillion mark: extending the same three pathways to 2046-47 puts livestock at $2.8 trillion (BAU), $3.4 trillion (Accelerated), or $4.2 trillion (High Growth).

Why the base case is the one to plan around: BAU assumes no major new reform or productivity breakthrough — it is what happens if the sector simply keeps doing what it has done for the past decade.

Data Table

Year	BAU Growth (@12.8%)	Accelerated Growth@13.8%	High Growth Vision@14.8%
2023-24	177	177	177
2025-26	225	229	233
2030-31	411	437	464
2035-36	749	832	925
2036-37	844	947	**1061**
2037-38	952	**1077**	1218
2038-39	**1074**	1226	1398
2046-47	**2808**	**3440**	**4208**

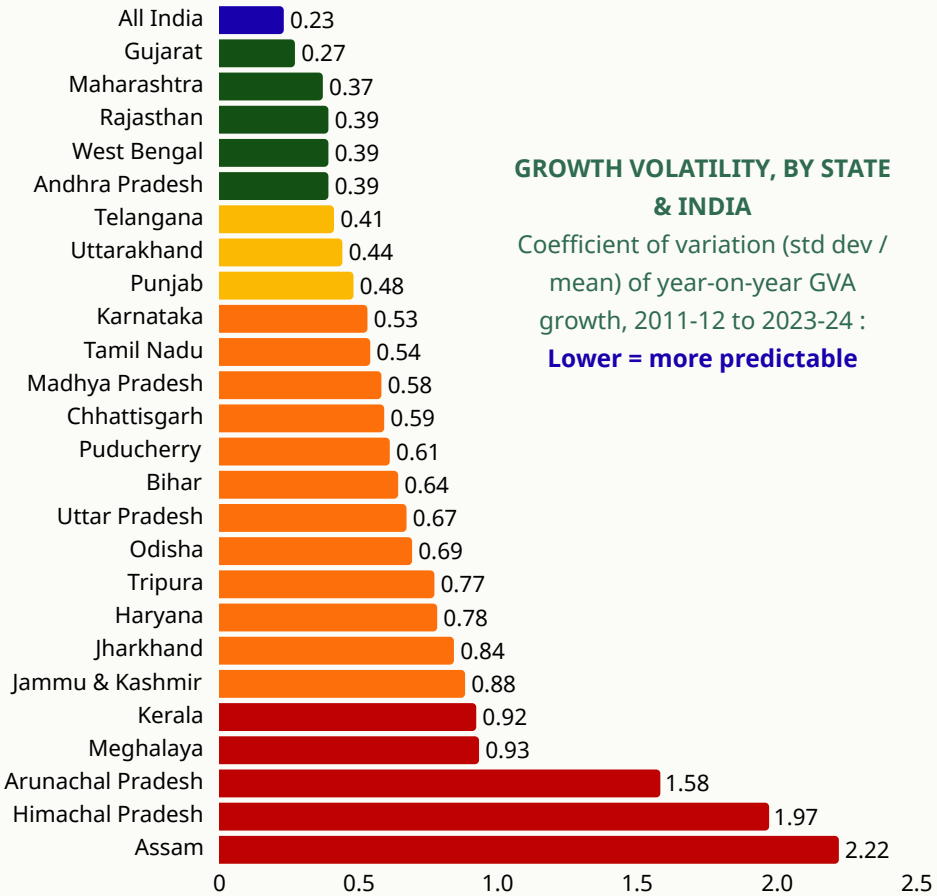
Source: BAHS 2025, DAHD, GoI; Livestock GVA in US$ computed from MoSPI current-price series; Forward projections (2024-25 onward) are GFST scenario modelling at fixed CAGR assumptions, not official government forecasts.

LIVESTOCK STABILITY RANKING :: INDIA BEATS STATES

DATA STORY 02

India's own national livestock growth is more stable than any individual state's - even Gujarat's. Pooled across the States/UTs the swings that hit individual states average out at the national level.

0.23	0.27	2.22	13	32 ± 1
ALL INDIA'S CV Most stable of all, incl. every State / UT	**GUJARAT'S CV** Most stable inividual State	**ASSAM'S CV** Most volatile of any major State	**YEARS OF DATA** 2011-12 TO 2023-24, 12 year-on-year growth readings	**STATES + INDIA** Every State and UT with a complete series



GROWTH VOLATILITY, BY STATE & INDIA

Coefficient of variation (std dev / mean) of year-on-year GVA growth, 2011-12 to 2023-24 :

Lower = more predictable

Most Stable (CV <0.4)	Stable (0.4 - 0.5)	Moderately Volatile (0.5 - 0.9)	Highly Volatile (CV >0.9)

India's national CV of 0.23 beats every single state individually - a textbook diversification effect : state-level shocks (a drought here, a disease outbreak there) rarely hit every state simultaneously, so they partially cancel out in the national aggregate.

The Diversification Effect, Made Visible

02

Data Story 01 traced India's path to $1 trillion using national-level growth. This story asks a different question : is that national growth genuinely dependable, or does it just average away a much rockier reality underneath?

India's national CV (0.226) beats every individual state, including Gujarat (0.266)—a genuine diversification effect. With states/uts rarely peaking or dipping together, the national aggregate smooths out volatility no single state achieves alone.

This qualifies how Story 01's $1 trillion path should be read at state level: national dependability doesn't transfer evenly downward. A state budgeting against the national CAGR may be assuming a stability its own history doesn't support.

Growing fast doesn't mean growing unpredictably—we checked directly whether states that grow faster also swing more wildly year to year. They don't. A state can be both quick-growing and dependable; one doesn't have to be traded for the other.

Three states combine above-average growth with genuine stability—Rajasthan (15.9% growth, CV 0.39), Andhra Pradesh (15.6%, 0.39), and Telangana (14.7%, 0.41) all beat India's own growth rate while staying in the "stable" band. For long-term investment, this is the rare combination worth naming directly.

The practical takeaway: growth rate alone is an incomplete basis for state-level planning. Rajasthan and Andhra Pradesh offer speed and predictability together; Assam and Himachal Pradesh need a fundamentally different, risk-aware approach even where their average growth looks comparable on paper.

Data Table

State/India	Mean Growth %	CV
All India	**13.60**	**0.23**
Gujarat	11.93	0.27
Maharashtra	11.08	0.37
Rajasthan	15.90	0.39
West Bengal	11.99	0.39
Andhra Pradesh	15.59	0.39
Telangana	14.75	0.41
Uttarakhand	8.37	0.44
Punjab	9.67	0.48
Karnataka	16.90	0.53
Tamil Nadu	14.86	0.54
Madhya Pradesh	22.41	0.58
Chhattisgarh	14.99	0.59
Puducherry	7.52	0.61
Bihar	16.12	0.64
Uttar Pradesh	12.21	0.67
Odisha	11.80	0.69

State/India	Mean Growth %	CV
Manipur	8.68	0.77
Tripura	23.16	0.77
Haryana	6.87	0.78
Jharkhand	15.07	0.84
Chandigarh	8.49	0.88
Jammu &Kashmir	11.47	0.88
Sikkim	17.58	0.89
Kerala	7.69	0.92
Meghalaya	10.90	0.93
Arunachal Pradesh	11.61	1.58
Himachal Pradesh	8.32	1.97
Assam	18.92	2.22
Mizoram	10.08	2.45
A & N Islands	4.71	2.54
Goa	10.16	2.74
Nagaland	1.40	13.72
Delhi	0.38	28.27

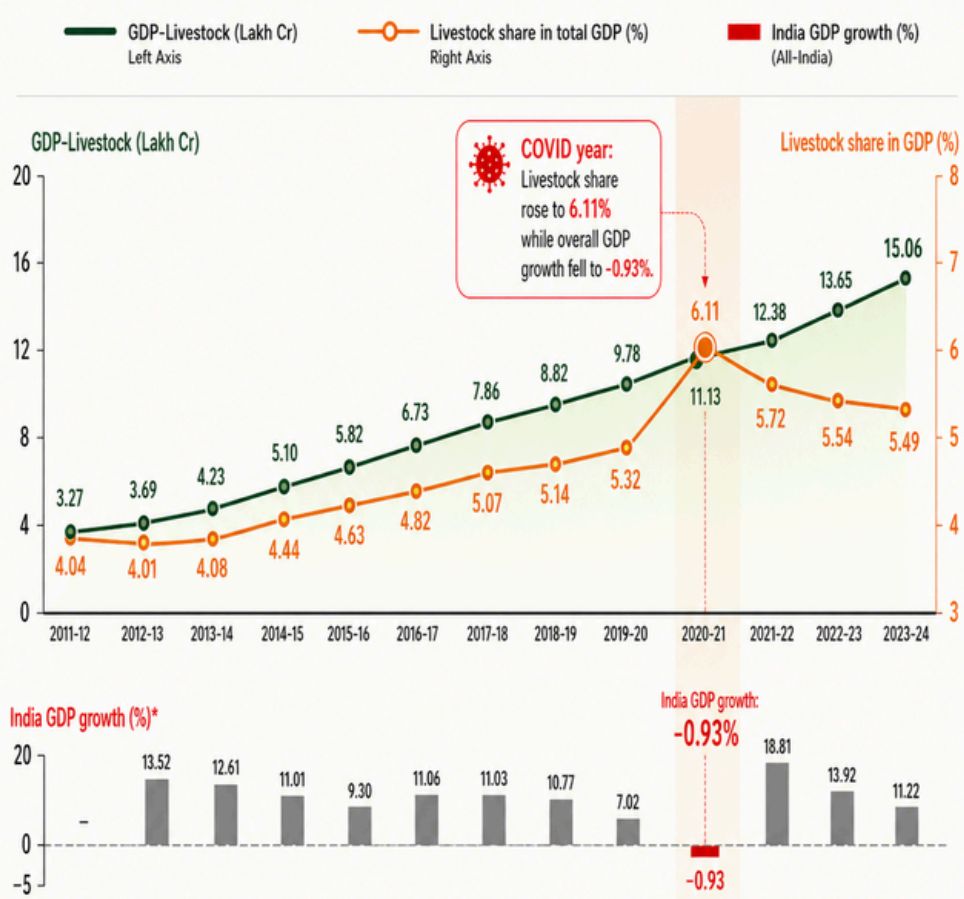
Source: GFST Statistical analysis : MoSPI Statewise GVA_Livestock, 2011–12 to 2023–24 annual series. Volatility metrics based on Coefficient of Variation (CV). CV = standard deviation / mean, applied to the series of year-on-year GVA growth rates; States with any missing/zero year excluded.

Livestock: A Recession-Resilient Growth Engine

DATA STORY 03

In 2020-21, India's overall GDP growth stalled to -0.9%; livestock still grew 13.8%, a gap of nearly 14.7 percentage points in the pandemic year, India's only near-contraction year on record.

13.8%	-0.93%	14.7 pts	8 of 12	0
LIVESTOCK GROWTH 2020-21, Current Prices - the Pandemic Year	**INDIA'S GDP GROWTH** 2020-21 - the only near-contraction year on record	**GROWTH GAP** Widest livestock-vs-GDP swing on record	**YEARS OUTGREW GDP** 2012-13 to 2023-24, current prices	**CONTRACTION YEARS** Livestock GVA, even through 2020-21



- Livestock share of total GVA rose from 5.32% (2019-20) to 6.11% (2020-21) - the peak of the series - before easing back as the broader economy recovered.

CONNECTS TO DATA STORY # 01

Livestock's actual growth in its single worst year (13.8%) matches Data Story #01's own "Accelerated Growth" Scenario (13.8% CAGR) exactly - the $1 Trillion projection is not built on an optimistic assumption alone, it's grounded in a rate the sector has already demonstrated under real stress.

Livestock: The Economy's Floor, Not Its Ceiling

Data Story # 01 introduced this same GVA series. Data Story # 02 showed India's aggregate growth is remarkably stable. This story asks a related but distinct question : when the wider economy actually broke, did livestock break with it?

Livestock's share of GVA peaked exactly when it mattered most — rising from 5.32% (2019–20) to 6.11% (2020–21) as the rest of the economy contracted. This is the same underlying series introduced in Data Story #00's ₹15.06 lakh crore figure.

Stability (Story #02) and resilience (this story) are related but not identical — Story #02 measured whether growth swings consistently year to year. This story asks a sharper question: specifically in the one year everything else broke, did livestock hold? It did — and by the widest margin on record.

The honest second half of this story: GDP outgrew livestock in every year since the pandemic — 2021–22 (18.8% vs 11.2%), 2022–23 (13.9% vs 10.3%), 2023–24 (11.2% vs 10.3%). Livestock isn't the fastest mover in either direction — it's the floor, not the ceiling.

That floor is exactly what Story #02's stability finding predicts — a sector with genuinely low volatility should neither collapse in the bad years nor sprint away in the good ones. The post-pandemic data confirms it: livestock's growth compressed into a narrow 10–12% band while GDP swung from -0.9% to +18.8%.

Why this matters for policy, precisely: a sector that neither contracts in a downturn nor overheats in a boom is a genuine counter-cyclical buffer for rural incomes — the kind of asset worth weighting explicitly in state-level economic planning, not just celebrating in a good year.

Data Table

Year	Livestock GVA Growth	India's GDP Growth	Gap (pts)
2012-13	12.68%	13.52%	-0.84
2013-14	14.61%	12.61%	+2.00
2014-15	20.75%	11.01%	+9.74
2015-16	14.11%	9.30%	+4.80
2016-17	15.49%	11.06%	+4.43
2017-18	16.82%	11.03%	+5.78
2018-19	12.26%	10.77%	+1.49
2019-20	10.87%	7.02%	+3.85
2020-21	**13.83%**	**-0.93%**	**+14.75**
2021-22	11.26%	18.81%	-7.55
2022-23	10.21%	13.92%	-3.71
2023-24	10.32%	11.22%	-0.91

Source: GFST Statistical Analysis. Livestock GVA: BAHS 2025, DAHD, GoI. India GDP Growth: MoSPI National Accounts, current prices.

Just 6 of 14 Species Hold 83% of India's Breed Diversity

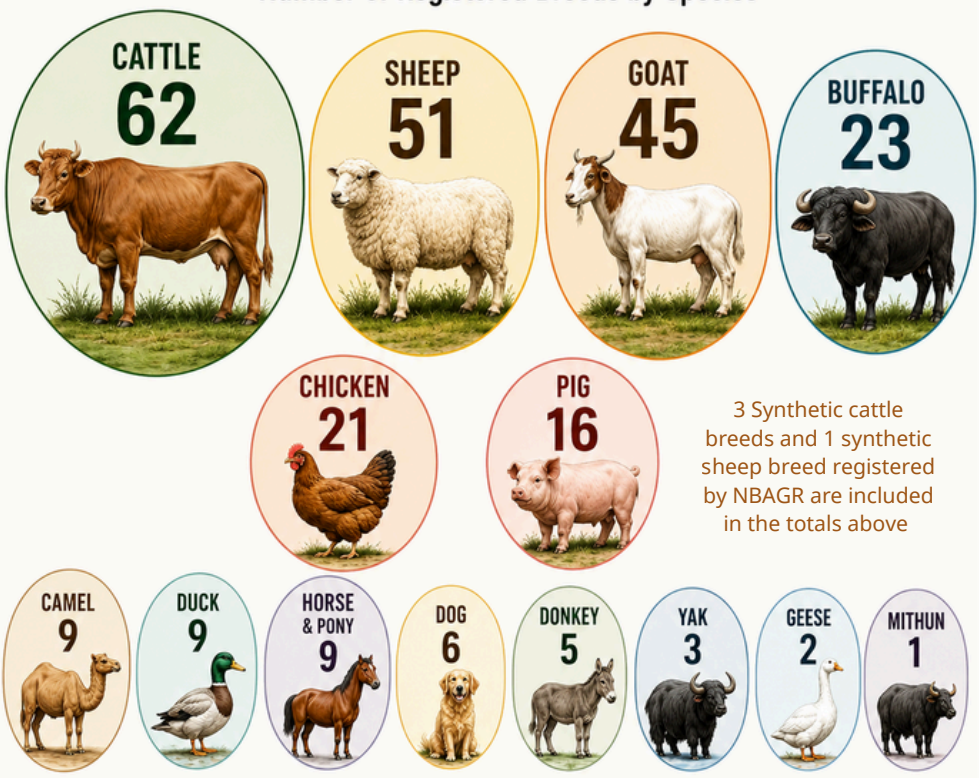
DATA STORY 04

India has registered 262 distinct livestock and poultry breeds - but that genetic wealth is sharply concentrated. Cattle, Buffaloe, Sheep, Goat, Pig and Chicken account for 218 of them.

262	110	83.2%	400	30-40 LAKH
REGISTERED BREEDS Across 14 species groups, Aug 2026	**BREEDS REGISTERED** In Last 12 Yrs (2015-16 to 2026-27)	**HELD BY TOP 6 SPECIES** Cattle, Buffaloes, Sheep, Goat, Pig and Chicken	**DISTRICTS COVERED** Across 24 States & 3 UTs	**FARMERS INVOLVED** Tied to 170 Lakh registered breed animals

THE GENETIC DIVERSITY LANDSCAPE

Number of Registered Breeds by Species



3 Synthetic cattle breeds and 1 synthetic sheep breed registered by NBAGR are included in the totals above

ON THE WORLD STAGE

FAO's global registry (DAD-IS) records over 8,800 distinct livestock breeds of 38 different species across 182 countries - placing India's 262 breeds at roughly 3% of the world's documented diversity. Globally, over 2,400 breeds are already at risk of extinction, and 600 are gone entirely - the backdrop Data Story # 05 examines next, for India specifically.

Source: ICAR-NBAGR, registered breeds as of August 2026; Domestic Animal Diversity Information System (DAD-IS) of the Food and Agriculture Organisation (FAO)

India's Livestock Diversity Is a Genetic Asset

Data Story # 02 found India's economic stability concentrated in a handful of states. This story finds the same underlying pattern in a completely different domain — genetic diversity concentrated in a handful of species.

Cattle alone account for nearly a quarter of India's entire breed registry — 62 of 262 breeds (23.7%), more than double the next largest group (sheep, 51 breeds). This single species carries a disproportionate share of the country's documented genetic heritage.

Small ruminants form the largest combined pool after cattle — sheep (51) and goat (45) together contribute 96 breeds, 36.6% of the total, reflecting centuries of localized adaptation to India's most climate-diverse, resource-constrained regions.

This is the same concentration pattern Data Story #02 found in economic stability, applied to genetics — just as a handful of states carried India's aggregate stability, just six species (cattle, sheep, goat, buffalo, chicken, pig) carry 83.2% of all registered breed diversity. Concentration, it turns out, is a recurring structural feature of this sector, not a one-off finding.

The remaining eight species each hold genuinely irreplaceable genetic material, despite tiny counts — Mithun (1 breed), Geese (2) and Yak (3) are not statistical noise; each represents a unique lineage adapted to specific regions (Northeast India's Mithun, Himalayan Yak) with no substitute if lost.

110 of these 262 breeds were registered in just the last 12 years — meaning documentation itself is accelerating, not static. This matters directly for Data Story #05, on conservation risk: a breed cannot be protected until it is first formally recognised and counted.

Data Table

Rank	Species	Registered Breeds	% Share of Total
1	Cattle	62	23.7
2	Sheep	51	19.5
3	Goat	45	17.2
4	Buffaloe	23	8.8
5	Poultry (Chicken)	21	8.0
6	Pig	16	6.1
7	Horse/Pony	9	3.4
8	Camel	9	3.4
9	Duck	9	3.4
10	Dog	6	2.3
11	Donkey	5	1.9
12	Yak	3	1.1
13	Geese	2	0.8
14	Mithun	1	0.4
	Total	**262**	**100.0**

Source: ICAR-NBAGR, registered breeds as of August 2026

1 in 6 Assessed Breeds Is At Risk - Camels Face It Most

DATA STORY 05

Of 236 registered breeds assessed for conservation status, 38 are Critical, Endangered or Vulnerable. But risk is not spread evenly - camels face it at nearly four times the average rate.

236	5	19	14	16.1%
BREEDS ASSESSED Of 262 Total, across 8 Species	**CRITICAL** Facing the Highest Risk of Extinction	**ENDANGERED** High risk of becoming Critical	**VULNERABLE** At risk of becoming Endangered	**TOTAL AT-RISK RATE** 38 of 236 assessed breeds

CONNECTS TO DATA STORY # 04

Data Story # 04 found 262 registered breeds and asked how many are actually secure. Here's the answer: 198 are not at risk - but 38 need active conservation attention, and the risk is not spread evenly across species.

Conservation Status by Species, Ranked by Breed Count

Rank	Species	Total Breeds	Status Breakdown (Number of Breeds) — Not At Risk	Vulnerable	Endangered	Critical	At-Risk (C+E+V)
1	Cattle	62	53	5	4	0	9
2	Sheep	51	42	5	3	1	9
3	Goat	45	41	1	2	1	4
4	Buffaloe	23	21	2	0	0	2
5	Chicken	21	20	1	0	0	1
6	Pig	16	14	0	2	0	2
7	Horse & Pony	9	4	0	5	0	5
8	Camel	9	3	0	3	3	6
	TOTAL	236	198	14	19	5	38

ON THE WORLD STAGE

Globally, FAO's registry shows roughly 27% of the world's assessed breeds are at-risk. India's 16.1% at-risk rate is proportionally lower - but 38 specific breeds still need it named directly, not averaged away.

Source: ICAR-NBAGR, registered breeds as of August 2026; Breed Watchlist 2022; Domestic Animal Diversity Information System (DAD-IS) of the Food and Agriculture Organisation (FAO)

Risk Is Concentrated, Not Uniform

India's breed diversity is substantial, but conservation pressure is not spread evenly across species — some carry it at multiples of the national average.

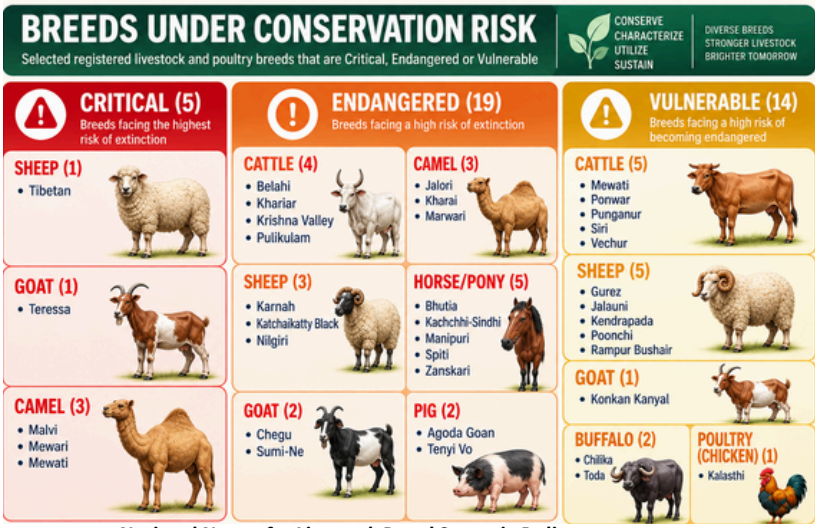
38 of 236 assessed breeds (16.1%) face conservation risk — 5 Critical, 19 Endangered, 14 Vulnerable. The remaining 198 (83.9%) are currently not at risk.

Camels face conservation risk at nearly four times the national rate — 6 of 9 breeds (66.7%) are at risk, including 3 Critical and 3 Endangered, against a national average of 16.1%. No other species comes close to this proportional burden.

Horse & Pony breeds face a narrower but still severe risk — 5 of 9 breeds (55.6%) are Endangered specifically, concentrated in one risk category rather than spread across all three.

Cattle and sheep carry the largest absolute burden, but the lowest proportional one — 9 at-risk breeds each, but against much larger total registries (62 and 51), that's 14.5% and 17.6% respectively — close to the national average, not far above it.

This story is India's data point on a UN global indicator, not an isolated domestic count — SDG Indicator 2.5.2 tracks exactly this question worldwide. Among breeds with a known status globally, FAO reports 27% are at risk (2024); India's assessed rate is 16.1% — a genuinely favourable position, though not a reason for complacency on the 38 breeds that do need it.



National Norms for Livestock Breed Status in India
Normal: >25,000 breeding animals; Insecure: 15,000–25,000; Vulnerable: 5,000–15,000; Endangered: 2,000–5,000; Critical: <2,000

Data Table

Species	Critical	Endangered	Vulnerable	Not At Risk	Total	At Risk	At-Risk %
Cattle	0	4	5	53	62	9	14.50%
Sheep	1	3	5	42	51	9	17.60%
Goat	1	2	1	41	45	4	8.90%
Buffalo	0	0	2	21	23	2	8.70%
Chicken	0	0	1	20	21	1	4.80%
Pig	0	2	0	14	16	2	12.50%
Horse/Pony	0	5	0	4	9	5	55.60%
Camel	3	3	0	3	9	6	66.70%
Total	**5**	**19**	**14**	**198**	**236**	**38**	**16.10%**

Source: ICAR–NBAGR, Breed Watchlist 2022; FAO SDG Indicator 2.5.2 report, 2024 (global comparision figure, breeds of known status).

India’s Livestock Portfolio Is Shifting

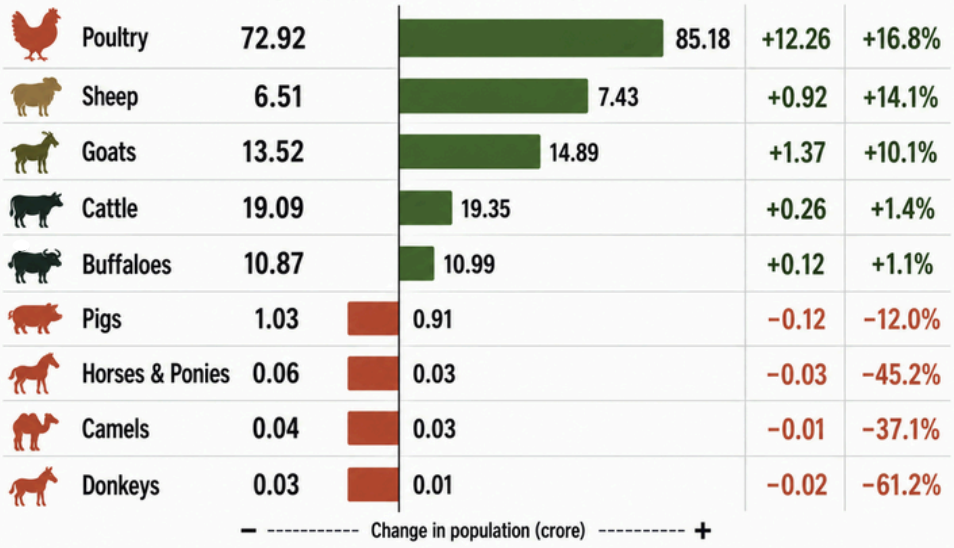
DATA STORY 06

Between 2012 and 2019, India’s livestock mix shifted toward sheep, goats and poultry - while camels and horses, already flagged as India’s most genetically at-risk breeds, saw their populations collapse by more than a third in just seven years.

37.3% → 36.0%	26.4% → 27.7%	21.2% → 20.5%	12.7% → 13.8%	51.21 → 53.68 Cr
Cattle share of livestock	Goat share of livestock	Buffalo share of livestock	Sheep share of livestock	Total Livestock
−1.3 pp	+1.3 pp	−0.7 pp	+1.1 pp	+4.8%

WINNERS & DECLINERS: 2012 → 2019

Change in population (in crore) and percent change



100 ANIMALS IN 2012 BECAME...

(population in 2019)



CONNECTS TO DATA STORIES #00 & #05

Story #00 opened the entire Atlas with 53.68 crore animals and 85.18 crore birds as the foundation of India's ₹15.06 lakh crore livestock economy. This story is what's actually inside that number — and shows the growth behind it also came from goats, sheep and poultry, not solely from cattle or buffaloes. Story #05 found camels face conservation risk at nearly 4x the national rate (6 of 9 breeds, 66.7%) and horse & pony breeds at 55.6% — the two most genetically endangered species in India's registry. This census shows the same two species also had the steepest population declines of the decade: camels −37.1%, horses & ponies −45.2%. The genetic warning light and the population count are pointing at exactly the same animals.

Source: 20th Livestock Census, DAHD, GoI compiled in BAHS 2025. Figures are actual enumerated Census counts, not projections. India’s 21st Livestock Census (2024) remains provisional at the State level only; national totals were not yet available at the time of writing.

The Herd Is Being Reshaped From Within

Data Story #02 found India's economic stability concentrated in a handful of states. Data Story #04 found breed diversity concentrated in a handful of species. This story finds the same pattern again — growth concentrated in a few species, while the rest quietly shrink.

The Number Story #00, unpacked: *India's 53.68 crore animals and 85.18 crore birds underpin a ₹15.06 lakh crore livestock economy. But growth is uneven: the increase also came from goats, sheep and poultry, not only cattle or buffaloes.*

Volume and value tell different stories: *Livestock headcount grew only 4.8% between 2012 and 2019, while Story #01 projects livestock GVA growing 12.8–14.8% annually toward $1 trillion. The gap suggests value growth is being driven mainly by productivity and prices, not animal numbers.*

Poultry, sheep and goats led growth: *Poultry rose 16.8%, sheep 14.1%, and goats 10.1%, well above the 4.8% overall growth rate. Cattle (+1.4%) and buffaloes (+1.1%) were nearly flat. Five species grew faster than the national average; four did not.*

Cattle show a striking contradiction: *Story #04 found cattle account for the largest share of India's breed registry — 62 of 262 breeds (23.7%) — yet their population share is shrinking, from 37.3% to 36.0%. Breed diversity and population dominance are moving in opposite directions.*

The strongest link is to Story #05: *Camels and horses/ponies had the highest shares of breeds at risk — 66.7% and 55.6% — and also recorded the steepest population declines: −37.1% and −45.2%. Genetic risk and population decline are pointing to the same emergency.*

Why this matters for Policy : *a species can be declining on the population axis, the genetic-diversity axis, or both - and only tracking one hides the other. Camels and horses are currently failing on both counts simultaneously, which makes them the clearest candidates in this entire Atlas for urgent, targeted conservation investment rather than broad-based livestock policy.*

Data Table

Species	2012 (Cr)	2019 (Cr)	% Change
Cattle	19.09	19.35	+1.4%
Buffaloes	10.87	10.99	+1.1%
Sheep	6.51	7.43	+14.1%
Goats	13.52	14.89	+10.1%
Pigs	1.03	0.91	-12.0%
Horses & Ponies	0.06	0.03	-45.2%
Camels	0.04	0.03	-37.1%
Donkeys	0.03	0.01	-61.2%
Total Livestock	**51.21**	**53.68**	**+4.8%**
Poultry	72.92	85.18	+16.8%

Source: 20th Livestock Census, DAHD, GoI compiled in BAHS 2025. Figures are actual enumerated Census counts, not projections. India's 21st Livestock Census (2024) remains provisional at the State level only; national totals were not yet available at the time of writing.

India's Milk Revolution: From Scarcity to the World's Largest Producer

DATA STORY 07

In 74 years, India's milk production grew 14.6-fold - from 170 Lakh MT of milk in 1950-51 to 2,479 Lakh MT in 2024-25. What took an entire year to produce in 1950-51, India now produces in less than one month.

170 TO 2479 LMT	# 1	1970	365 TO 25 DAYS	~207 LMTS
MILK PRODUCTION 1950-51 to 2024-25	**WORLD'S LARGEST** Milk Producer - Now, 25% of everything the world drinks	**OPERATION FLOOD** The turning point behind the growth curve	**TIME TO MATCH 1950** AT TODAY'S PACE - Time needed today to produce 170 LMTs	**ONE MONTH TODAY** More than the whole of 1950-51



THE MILK CALENDAR

How much milk does India produce at today's pace?

1 DAY	7 DAYS	25 DAYS	1 MONTH	1 YEAR
~6.8 Lakh MT	~47.5 Lakh MT	~170 Lakh MT ≈ India's entire 1950-51 production	~207 Lakh MT	2,479 Lakh MT

CONNECTS TO DATA STORIES #00 & #01

Story #00 opened this Atlas citing 2,479 lakh tonnes as part of India's ₹15.06 lakh crore livestock economy and its #1 world ranking in milk — this story is the 74-year journey behind that single number. Milk is also the single largest component of the livestock GVA that Story #01 projects compounding toward $1 trillion, so this same journey doubles as the historical foundation that trajectory builds on — a sector that grew from scarcity into India's largest livestock sub-sector by value.

Source : BAHS 2025 / DAHD historical milk production series; NDDB Operation Flood documentation; World ranking : PIB/DAHD year-end review.

From 365 Days to 25: The Making of a Dairy Superpower

India's milk story is not just about a bigger number. It is about a country that imported milk powder in the 1950s and 60s becoming, within a single working lifetime, the largest milk producer the world has ever had — by a margin no other country approaches.

The starting point was genuine scarcity: in 1950-51, India produced 170 lakh tonnes of milk for the entire year — a modest, largely subsistence-level output for a nascent nation.

Operation Flood (1970) marks the inflection point: the "Anand pattern" cooperative dairy model was taken national, eventually linking producers to a National Milk Grid reaching hundreds of towns and cities. Production reached 539 lakh tonnes by 1990-91 — already more than three times the 1950-51 level.

The growth has kept compounding, not slowing to a plateau: from 806 lakh tonnes in 2000-01, output more than tripled to 2,478.7 lakh tonnes by 2024-25 — and the single decade from 2010-11 (1,218 LMT) to 2024-25 alone accounts for more than half of that entire increase.

India crossed the United States to become the world's largest producer in 1998 and has held that position for over 25 years since — achieved not through industrial mega-dairies, but through the aggregate effort of tens of millions of smallholder families, most milking one or two animals each.

The clearest way to feel the scale is through time, not tonnes: at today's production pace, India produces its entire 1950-51 annual output in roughly 25 days. A number that once took a full year now takes less than a month — the same transformation, measured in a unit everyone understands.

Data Table

Year	Milk Production	Multiple of 1950-51	Time to Produce 170 LMT
1950-51	170 LMT	1.0×	365 days
1973-74	232 LMT	1.36×	~267 days
1990-91	539 LMT	3.17×	~115 days
2000-01	806 LMT	4.74×	~77 days
2010-11	1,218 LMT	7.16×	~51 days
2020-21	2,100 LMT	12.35×	~30 days
2024-25	**2,478 LMT**	**14.6×**	**~25 days**

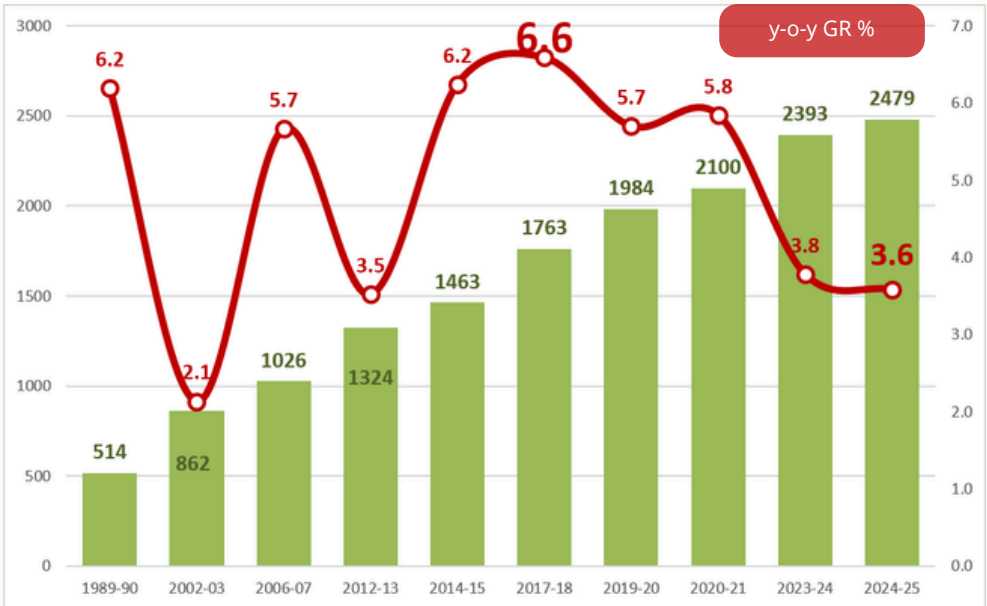
Source : BAHS 2025 / DAHD historical milk production series; NDDB Operation Flood documentation; World ranking : PIB/DAHD year-end review.

India's Milk Growth Rate Has Nearly Halved

08

India keeps setting new milk production records - 2479 Lakh MTs, the highest ever. But the growth RATE behind those records has fallen from 6.59% (2017-18) to 3.58% (2024-25). Records and momentum are not the same thing.

6.6 TO 3.6%	2479 LAKH MT	6.39 TO 4.55%	1.4% / 1.1%	#1
GROWTH RATE, 2017-18 TO 2024-25	RECORD PRODUCTION, 2024-25	5-Yr CAGR COMPARISON	CATTLE/BUFFALOE GROWTH, 2012-19	WORLD'S LARGEST
Nearly Halved in Seven Years	The number that hides slowodown	2014-19 Vs 2019-24 - Sustained, not a blip	Near flat growth	SINCE 1998
				Still unchallenged at the top, for now



The 5-year CAGR slowed from 6.39% during 2014–15 to 2019–20 to 4.55% during 2019–20 to 2024–25, indicating a clear moderation in growth.

CONNECTS TO DATA STORY #06

Story #06's Livestock Census found cattle and buffalo populations grew just 1.4% and 1.1% between 2012 and 2019 — essentially flat. You cannot keep growing milk output at 6%+ a year from a bovine herd that barely grows at all. Recent milk growth has to be coming almost entirely from yield and productivity gains — and this story shows even that engine is now losing steam.

Source: Basic Animal Husbandry Statistics (BAHS) 2025, DAHD, GoI — year-wise milk production series. Growth-rate deceleration and 5-year CAGR comparison computed from the source series. Cross-referenced against Data Story #06 (20th Livestock Census, 2019) for bovine population growth context.

A Record Year Can Still Be A Slowdown

Every headline about India's milk sector says the same thing: production hit a new all-time high. That's true every single year, almost by definition, in a series that has grown for seven decades. It is also the reason almost nobody has noticed the growth rate itself quietly losing steam.

The deceleration is real and multi-year, not a single bad year: the 5-year CAGR from 2014-15 to 2019-20 was 6.39% — a genuine boom. The following five years (2019-20 to 2024-25) averaged just 4.55%. That's not noise; it's a sustained, roughly one-third reduction in the sector's growth engine.

2017-18 looks like the high-water mark: year-on-year growth peaked at 6.6% that year and has trended down since, with only partial recoveries — 2019-20 (5.70%) and 2020-21 (5.8%) still looked healthy, but 2023-24 (3.8%) and 2024-25 (3.6%) mark the slowest two-year stretch in the recent series.

Story #06 explains why this was always going to happen eventually: cattle and buffalo — the animals that produce nearly all of India's milk — grew just 1.4% and 1.1% respectively between the 2012 and 2019 Livestock Census. A herd that isn't growing can only sustain 6%+ annual output growth through yield gains (better breeds, better feed, better health) — and yield gains get harder to sustain as the "easy" gains are exhausted.

A base-effect caveat is worth stating plainly: percentage growth naturally looks smaller on a bigger base — going from 170 to 230 lakh tonnes (1950s-70s) is a much easier percentage than going from 2,393 to 2,479 lakh tonnes today. Some of this deceleration is arithmetic, not necessarily a sign of a weakening sector. Both things can be true at once.

Why this matters for policy and for this Atlas's own $1 trillion story: Story #01 models the broader livestock GVA compounding at 12.8-14.8% annually. Milk is the largest single component of that value. If physical milk output growth continues decelerating toward 3.5-4.5% while value projections assume double-digit compounding, the gap between the two has to be closed by prices, exports, or value-addition — not by more litres. That's a materially different growth story than "more milk," and worth stating explicitly rather than assuming.

Data Table

Year	Milk Prodn Lakh MTs	y-o-y GR %
1989-90	514	6.2
2002-03	862	2.1
2006-07	1026	5.7
2012-13	1324	3.5
2014-15	1463	6.2
2017-18	**1763**	**6.6**
2019-20	1984	5.7
2020-21	2100	5.8
2023-24	2393	3.8
2024-25	**2479**	**3.6**

Source: Basic Animal Husbandry Statistics (BAHS) 2025, DAHD, GoI — year-wise milk production series. Growth-rate deceleration and 5-year CAGR comparison computed from the source series. Cross-referenced against Data Story #06 (20th Livestock Census, 2019) for bovine population growth context.

DATA STORY 09

India's Largest All-Women-Owned Dairy (SHREEJA)

In 2014, 27 women with no bank account of their own began a dairy at the foothills of Tirumala, Andhra Pradesh. Today ~1.5 lakh women own, govern and profit from the Rs.1200-Crore company they built - India's largest all dairy women.

1.5 LAKHS	₹1,200 CR	9 LLPD	₹ 6,500 CR	4-15-5000
WOMEN PRODUCER MEMBERS	ANNUAL TURNOVER	AVERAGE MILK PROCUREMENT IN LAKH LITRES PER DAY	PAID DIRECTLY TO MEMBERS SINCE 2014	STATES-DISTRICTS-VILLAGES



WHY THIS STORY MATTERS FOR THE ATLAS

Every other Data Story in this Atlas measures the livestock economy from the outside - census counts, GVA shares, credit gaps.
Shreeja is measured from the inside : what happens to those national numbers when ownership, governance and the bank account all sit with the woman who does the work.

"She doesn't work here. She owns it."
SHREEJA MAHILA MILK PRODUCER COMPANY - 1.5 LAKH WOMEN, ONE OWNERSHIP MODEL

From 27 Women To A Rs.1200-Crore Company

Most milk in India moves through systems where women do the daily work and a male household head holds the passbook. Shreeja was built the other way: the women who supply the milk are also its owners, its bank-account holders, and its board.

A producer-owned enterprise from day one — Promoted in 2014 by NDDB Dairy Services with market linkage through Mother Dairy, Shreeja began with 27 women near Tirupati — designed from the start to be owned by the women who supply the milk, not merely employ them. Nationally, nearly 70% of India's dairy-farming workforce is women, yet only ~35% are active in dairy cooperatives — the gap Shreeja's ownership model closes.

From 27 women to ~1.5 lakh shareholders — Twelve years on, Shreeja federates roughly 1.5 lakh women producer-members across 4 states, 15 districts and ~5,000 villages — the largest membership of any such institution in the country, procuring 9 lakh litres/day.

The payment is the empowerment mechanism — ₹6,500 crore in milk bills paid directly to members since inception — a transparent, sustained transfer of economic value to rural households that has strengthened financial inclusion and women's standing within their families.

Vertical integration: the ₹280-crore Kuppam plant — Shreeja's own Integrated Dairy & Cattle Feed Plant makes it the first milk producer company in India with an in-house processing and feed facility — plus Mobile Veterinary Units bringing emergency animal care to her door.

Governance and growth that compound — All 11 board seats are elected from among the members themselves. Annual turnover has reached ₹1,200 crore — the financial record of what happens when ownership, governance and the bank account all sit with the same woman.

Data Table

Milestone / Metric	Detail
Founded	2014, by 27 women, near Tirupati, AP
Promoted by	NDDB Dairy Services; market linkage via Mother Dairy
Women members today	~1.5 lakh — 4 states, 15 districts, ~5,000 villages
Board of Directors	11 of 11 seats — all women, elected by members
Milk paid since inception	₹6,500 Cr, direct to members' own accounts
Kuppam integrated plant	₹280 Cr — dairy processing + cattle feed
Mobile Veterinary Units	Doorstep emergency animal healthcare
Recognition	IDF Innovation Award — Women Empowerment

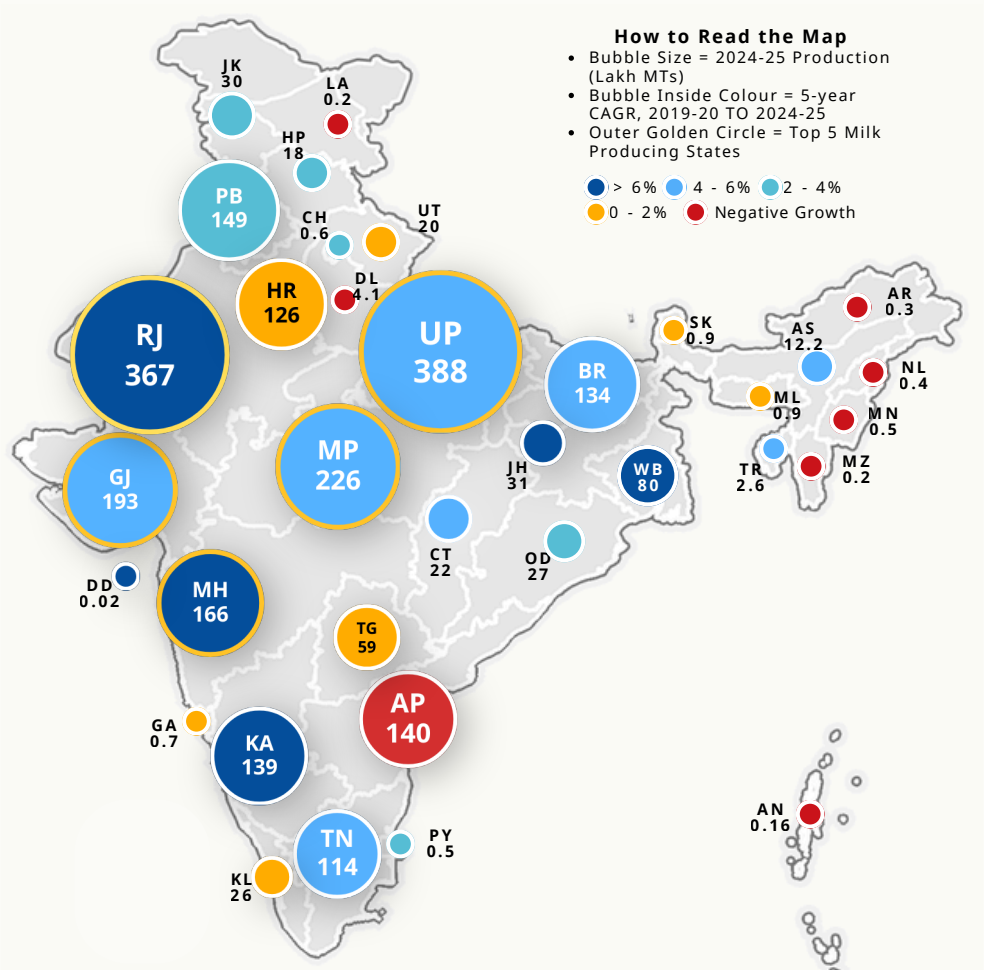
Source: Shreeja Mahila Milk Producer Company Ltd; Shreejamilk.com;

India’s Milk Map Is Quietly Being Redrawn

DATA STORY 10

More than half of India’s milk comes from just five states - but Karnataka is growing nearly 2 times faster than the national rate, Rajasthan could overtake Uttar Pradesh’s #1 spot within about 2 years, and 5 States are producing less milk than they did seven years ago.

2479 Lakh MTs	54.2%	9% CAGR	5 STATES	4.55%
INDIA’s MILK PRODUCTION During 2024-25	TOP 5 STATES SHARE UP, Rajasthan, MP, Gujarat, Maharashtra	KARNATAKA, FASTEST GROWER Nearly double the National Rate	PRODUCING LESS THAN IN 2019-20 AP, MZ, NL, MN, Arunachal	NATIONAL CAGR 2019-20 to 2024-25



CONNECTS TO DATA STORY # 00

Data Story #00 opened this Atlas with India’s #1 world ranking in Milk, built on 2,479 Lakh Metric Tonnes of national production. This State-wise breakdown shows that single number is really 36 different, often opposite, State/UT stories - a growing national total can and does coexist with individual states already in outright decline.

Source: BAHS 2025, DAHD, GoI. All growth-rate and concentration figures are GFST’s calculations from this underlying series.

Same National Trend, Opposite State Stories

India's milk production is usually reported as a single national figure. Underneath it are 36 separate State/UT trajectories — some accelerating, few shrinking — and the gap between the fastest and slowest of them is widening, not narrowing.

Production remains concentrated, and slightly more so than in 2019-20: the top 5 states (Uttar Pradesh, Rajasthan, Madhya Pradesh, Gujarat, Andhra Pradesh in 2019-20) held 53.0% of national output; by 2024-25 the top 5 (UP, Rajasthan, MP, Gujarat, Maharashtra — AP has since dropped out of the top 5) held 54.2%. Concentration is not falling as the sector grows.

Karnataka is the standout performer in the entire dataset: production grew from 90.3 lakh MT to 139.0 lakh MT — a 9.00% CAGR, nearly double the 4.55% national rate, and the fastest of any major producing state over this 5-year window. No other large state comes close to this pace.

Rajasthan is close enough to Uttar Pradesh to make the #1 spot genuinely contestable: at current 5-year CAGRs (UP 4.03%, Rajasthan 7.52%), simple extrapolation puts Rajasthan ahead of Uttar Pradesh in roughly 1.7 years. This is a projection from recent trend, not a forecast — growth rates can and do change — but the gap (388.15 vs 367.41 lakh MT, just 5.3%) is close enough that the question is now genuinely open.

Andhra Pradesh's decline is the most consequential finding in this dataset: at −1.79% CAGR, it looks like a modest decline on the list — but AP was a top-5 producer by scale in 2019-20 (152.63 lakh tonnes) and has since fallen out of the top 5 entirely, overtaken by Maharashtra. Its absolute drop since 2019-20 is larger in real terms than the entire annual output of most mid-sized states.

The steepest declines are concentrated in the Northeast, and they have worsened over this shorter window: Arunachal Pradesh's output has more than halved (−15.13% CAGR, a 56% total decline since 2019-20) and Manipur has fallen 45.5% in the same period. Nagaland's decline (−4.41%) is comparatively milder. This is a distinct regional cluster, separate from Andhra Pradesh's scale-driven story, and worth a dedicated look at what's different about dairy economics in these states specifically.

Data Table

State/UT	2019-20 Milk Production ('000 tonnes)	2024-25 Milk Production ('000 tonnes)	5-Year CAGR
Karnataka	9031.49	13897.53	9.00%
Daman,D&N Haveli	1.21	1.84	8.74%
Rajasthan	25573.09	36741.37	7.52%
Maharashtra	12024.26	16625.59	6.69%
West Bengal	5868.61	7954.17	6.27%
Jharkhand	2321.16	3114.66	6.06%
Assam	919.94	1224.08	5.88%
Tripura	198.6	263.69	5.83%
Madhya Pradesh	17108.96	22595.53	5.72%
Tamil Nadu	8759.01	11442.91	5.49%
Chandigarh	48.87	63.77	5.47%
Chhattisgarh	1675.56	2162.16	5.23%
Bihar	10480.33	13397.69	5.03%
Gujarat	15292.35	19293.64	4.76%
Uttar Pradesh	31863.91	38815.34	4.03%
Himachal Pradesh	1530.94	1823.89	3.56%
Jammu & Kashmir	2506.36	2973.89	3.48%
Puducherry	49.5	58.05	3.24%
Odisha	2370.18	2700.96	2.65%
Punjab	13347.56	14874.74	2.19%
Goa	61.43	67.39	1.87%
Haryana	11734.72	12592.75	1.42%
Meghalaya	87.6	93.95	1.41%
Sikkim	83.94	89.35	1.26%
Telangana	5589.8	5935.12	1.21%
Uttarakhand	1844.71	1957.25	1.19%
Kerala	2544.35	2560.58	0.13%
Mizoram	23.53	23.51	-0.02%
Andhra Pradesh	15263.1	13946.13	-1.79%
A&N Islands	18.9	16.17	-3.07%
Nagaland	61.64	49.19	-4.41%
Manipur	89.65	48.89	-11.42%
Arunachal Pradesh	60.63	26.7	-15.13%
Lakshadweep	3.78	0.42	-35.56%
Ladakh	--	23.58	--
Delhi	--	413.51	--
All India	**198439.67**	**247869.98**	**4.55%**

Source: BAHS 2025, DAHD, GoI. All growth-rate and concentration figures are GFST's calculations from this underlying series.

How India Keeps Its Milk Honest

As India drinks more milk every year, its regulators have tightened their grip even faster - the share of adulteration cases ending in conviction has climbed from roughly three in five to nearly nine in ten in just four years.

5.686	5.085	557	1,17,928	87.7%
Litres Per Month (2023-24)	Litres Per Month (2023-24)			
URBAN PER-CAPITA MILK CONSUMPTION	RURAL PER-CAPITA MILK CONSUMPTION	NABL ACCREDITED LABs+MOBILE UNITS	FSSAI-LICENCED DAIRY BUSINESSES	CONVICTION RATE on Non-Confirming Cases, 2024-25

India's Milk Safety Ecosystem

Testing infrastructure, consumer safeguards, and enforcement snapshot (2024–25).



PUTTING TESTING POWER IN THE CONSUMER'S HANDS

FOOD SAFETY MAGIC BOX
107 quick screening tests, 27 specific to dairy - built for on-the-spot use by field and enforcement staff, extending the testing network beyond fixed labs.

DART BOOKLET
Over 50 household-level adulterant detection tests, developed by FSSAI so any consumer can check their own milk meant for consumption at home, without waiting for a regulator.

WHY THIS STORY MATTERS FOR THE ATLAS

Every growth number in this Atlas rests on an assumption that the underlying product is safe to sell and consume. This story tests that assumption directly — and shows India's dairy institutions building the testing, detection and enforcement capacity to keep pace with an industry that is still expanding fast, even where the adulteration numbers show real work remains.

Source: Lok Sabha Unstarred Question No.2769, "Production and Consumption of Milk" Ministry of Fisheries, Animal Husbandry & Dairying answered on 13 March 2026; PIB Release PRID 2239419; Household Consumption Expenditure Survey (HCES), National Sample Survey Office. % Non-Conforming" and "Conviction Rate" (civil convictions ÷ non-conforming samples) are computed from the raw figures in that release, not stated in it directly. 2025-26 figures are provisional as stated in the source.

The Regulatory Machine Behind Every Glass of Milk

India's per-capita milk consumption has stayed broadly steady across recent years — what has moved sharply is the regulatory response behind it. A wider testing footprint and a much higher conviction rate show enforcement intensifying even as the underlying adulteration incidence hasn't structurally improved.

Urban India drinks more milk than rural India — Per-capita monthly consumption stood at 5.686 litres in urban areas versus 5.085 litres in rural areas in 2023-24 — a gap of roughly 12% that has persisted even as rural areas remain the country's main production base.
The conviction rate has climbed nearly 30 percentage points in four years — Civil convictions as a share of non-conforming samples rose from 59.0% (2021-22) to 87.7% (2024-25) — regulators are now converting the large majority of flagged samples into enforcement outcomes, versus roughly six in ten just four years earlier. Civil and criminal penalties together exceeded ₹206 crore across these same four years.
Non-conforming incidence itself hasn't fallen in step — The share of tested samples found non-conforming has swung between 17% and 25% every year since 2021-22 with no clear downward trend — meaning today's higher conviction rate reflects better enforcement follow-through, not a shrinking adulteration problem.
Testing reach is now near-universal geographically — 252 NABL-accredited laboratories, 24 Referral Food Laboratories and 305 Mobile Food Testing Laboratories operate across 35 States/UTs — giving regulators a physical testing presence in virtually every part of the country, not just metro markets.
Criminal enforcement remains the exception, not the rule — Criminal convictions (671 to 1,756 a year) are a small fraction of civil convictions (19,437 to 30,142) across every year in this data — roughly 13 to 29 civil cases for every 1 criminal case, suggesting most adulteration violations are still resolved administratively rather than prosecuted as crimes.

Data Table

Sl. No.	State/UT	Monthly Per Capita Milk Consumption 2023-24		Samples Analysed	Non-Conforming Samples	Civil Cases with Penalty	Criminal Cases – Convictions
		Rural	Urban				
1	Andhra Pradesh	4.392	4.64	5,984	514	464	8
2	Arunachal Pradesh	1.137	1.957	125	9	7	0
3	Assam	1.537	2.136	1,705	234	0	0
4	Bihar	5.36	7.066	2,863	124	25	0
5	Chhattisgarh	1.326	2.872	2,069	270	143	6
6	Delhi	8.485	8.943	2,624	130	18	16
7	Goa	4.005	4.612	1,172	74	11	0
8	Gujarat	6.421	7.418	12,387	901	859	91
9	Haryana	14.188	11.511	2,233	500	599	59
10	Himachal Pradesh	10.362	8.735	1,587	293	471	0
11	Jharkhand	2.563	4.458	364	138	52	0
12	Karnataka	4.255	4.515	9,371	662	283	32
13	Kerala	3.433	3.128	10,767	1,635	1,088	206
14	Madhya Pradesh	5.534	6.112	13,920	1,635	2,597	22
15	Maharashtra	3.793	4.775	5,403	1,250	1,147	0
16	Manipur	0.703	0.721	126	1	2	0
17	Meghalaya	1.137	1.912	388	5	0	0
18	Mizoram	1.802	1.92	0	2	0	0
19	Nagaland	0.088	0.181	223	11	0	0
20	Odisha	1.126	2.329	2,282	273	27	0
21	Punjab	11.427	11.044	4,131	748	333	8
22	Rajasthan	11.284	9.853	13,840	3,788	3,114	30
23	Sikkim	7.634	6.479	254	0	0	0
24	Tamil Nadu	4.587	4.779	18,071	2,240	1,536	492
25	Telangana	3.583	3.867	3,347	324	125	0
26	Tripura	1.564	1.987	123	5	0	0
27	Uttar Pradesh	5.693	7.996	30,380	16,500	14,920	215
28	Uttarakhand	7.493	6.463	1,509	140	256	4
29	West Bengal	1.498	1.933	14,502	1,217	672	6
30	A & N Island	1.501	2.991	810	4	0	0
31	Chandigarh	11.267	14.25	374	65	116	41
32	DN Haveli & D&D	3.246	4.709	56	0	0	0
33	Jammu & Kashmir	9.521	10.111	6,955	651	1,239	29
34	Ladakh	11.558	12.122	417	45	38	0
35	Lakshadweep	0.429	0.806	0	0	0	0
36	Puducherry	4.813	5.657	173	0	0	0
	All-India	5.085	5.686	**170,535**	**34,388**	**30,142**	**1,265**

Source: Lok Sabha Unstarred Question No.2769, "Production and Consumption of Milk" Ministry of Fisheries, Animal Husbandry & Dairying answered on 13 March 2026; PIB Release PRID 2239419; Household Consumption Expenditure Survey (HCES), National Sample Survey Office. % Non-Conforming" and "Conviction Rate" (civil convictions ÷ non-conforming samples) are computed from the raw figures in that release, not stated in it directly. 2025-26 figures are provisional as stated in the source.

India's Nutrition Security Heatmap

India produces more milk than any nation on earth, and a state-by-state look at per-capita availability (production divided by population) shows several states already meeting or exceeding national nutrition benchmarks — a model the rest of the country can still reach.

485 GR/DAY
ALL-INDIA MILK
ICMR Target = 300 gr/day

7.5 KG/YR
ALL-INDIA MEAT
ICMR Target = 10.95 kg/yr

106/YR
ALL-INDIA EGGS
ICMR Target = 180 eggs/yr

3 STATES
CLEAR ALL 3 BENCH MARKS
Haryana, Andhra Pradesh, Telangana

19%
ASSAM - BOTTOM STATE
Average benchmark achievement, all 3 foods

THE NUTRITION AVAILABILITY MAP - % OF ICMR-CITED TARGET, 2024-25
Per-Capita Availability = State Production / Population; Not Measured Consumption

State/UTs	Per Capita Availability (2024-25)			% of ICMR-cited target achieved			
	Milk (gr/day)	Meat (kg/yr)	Eggs (no./yr)	Milk	Meat	Eggs	Avg
Haryana	1128	23.87	299	376%	218%	166%	253%
Andhra Pradesh	716	21.33	514	239%	195%	286%	240%
Telangana	425	28.78	506	142%	263%	281%	229%
Punjab	1318	8.68	164	439%	79%	91%	203%
Rajasthan	1229	2.92	39	410%	27%	22%	153%
Tamil Nadu	407	10.4	302	136%	95%	168%	133%
Karnataka	559	6.63	146	186%	61%	81%	109%
West Bengal	219	13.14	161	73%	120%	89%	94%
Madhya Pradesh	707	1.76	35	236%	16%	19%	90%
Jammu & Kashmir	595	6.48	14	198%	59%	8%	88%
A&N Islands	110	13.15	195	37%	120%	108%	88%
Gujarat	730	0.53	28	243%	5%	16%	88%
Maharashtra	358	9.54	65	119%	87%	36%	81%
Kerala	195	14.55	70	65%	133%	39%	79%
Himachal Pradesh	666	0.72	13	222%	7%	7%	79%
Tripura	173	14.15	84	58%	129%	47%	78%
Uttar Pradesh	447	5.38	26	149%	49%	14%	71%
Meghalaya	76	17.25	37	25%	158%	21%	68%
Uttarakhand	456	2.18	54	152%	20%	30%	67%
Sikkim	352	7.24	17	117%	66%	9%	64%
Odisha	159	5.29	84	53%	48%	47%	49%
Mizoram	52	12.05	34	17%	110%	19%	49%
Bihar	285	3.27	29	95%	30%	16%	47%
Arunachal Prdsh	46	11.65	33	15%	106%	18%	47%
Nagaland	60	10.86	20	20%	99%	11%	43%
Chhattisgarh	194	2.11	81	65%	19%	45%	43%
Manipur	41	9.78	44	14%	89%	24%	42%
Ladakh	214	4.75	12	71%	43%	7%	40%
Puducherry	94	8.95	7	31%	82%	4%	39%
Jharkhand	214	2.32	27	71%	21%	15%	36%
Goa	117	4.94	28	39%	45%	16%	33%
Lakshadweep	17	1.66	76	6%	15%	42%	21%
Assam	92	1.93	18	31%	18%	10%	19%
Chandigarh	141	0.56	2	47%	5%	1%	18%
Delhi	52	0	0	17%	0%	0%	6%
Daman, N Haveli	4	0.04	1	1%	0%	1%	1%
All India	**485**	**7.5**	**106**	**162%**	**68%**	**59%**	96%

<25% | 25-49% | 50-74% | 75-99% | >=100%

One India, Thirty-Six Nutrition Stories

India's national average clears the ICMR-cited target for milk and is closing in on meat and eggs. Behind that single number sit 36 states and UTs at very different points on the same curve — several already at or above every target, showing the rest of the country what full availability looks like.

Milk availability is a national strength — India's per-capita milk availability (485 g/day, i.e. state production divided by population) clears the ICMR-cited target of 300 g/day by 62%. Leaders like Punjab (1,318 g/day) and Rajasthan (1,229 g/day) show what's achievable — 2.5–2.7× the national figure — while states such as Daman & D&N Haveli (4 g/day) mark the room still to grow, a 330-fold spread within one country.

Meat and eggs are the next frontier — Nationally, meat availability (7.5 kg/yr) stands at 68% of the ICMR-cited target, and eggs (106/yr) at 59% — both climbing. Ten of 36 states/UTs already clear the meat target and five clear the egg target, giving the rest of the country a proven, reachable benchmark to build toward.

Haryana is the only state that clears all three — Haryana posts 376% of the milk target, 218% of meat, and 166% of eggs — the only state in this dataset to clear all three ICMR-cited benchmarks simultaneously. Andhra Pradesh and Telangana come close, driven mainly by very high meat and egg availability rather than milk.

Milk-rich states are not necessarily protein-rich states — Milk and meat availability are only weakly correlated across states (r = 0.12) — Punjab and Rajasthan lead milk but rank near the bottom on meat (79% and 27% of target). Meat and egg availability, by contrast, move together closely (r = 0.75): states strong in one tend to be strong in the other.

A handful of UTs show where the next gains will come from — Daman & D&N Haveli, Delhi, Chandigarh, Assam and Lakshadweep post combined scores of 21% or below across all three metrics — low local production-based availability concentrated among smaller UTs, and likely offset in practice by supply brought in from neighbouring states rather than a true absence of animal protein.

WHY THIS STORY MATTERS FOR THE ATLAS

Most of this Atlas measures livestock as an economic engine - GVA, production, exports, credit. This Story asks the other question: Is that engine also nourishing the people who own it?
A national average of 96% target-adequacy hides the fact that most individual States/UTs fall well short - production scale and nutrition access are not the same achievement, and closing that gap needs State-level policy, not just national output growth.

Source: BAHS 2025, DAHD, GoI (PCA of milk, meat and eggs); ICMR-cited per-capita targets implied by the dataset's own "%of target" column: milk 300 gr/day, meat ~10.95 kg/yr, eggs 180/yr - consistent with ICMR-NIN dietary guideline benchmarks commonly cited for animal-protein adequacy.

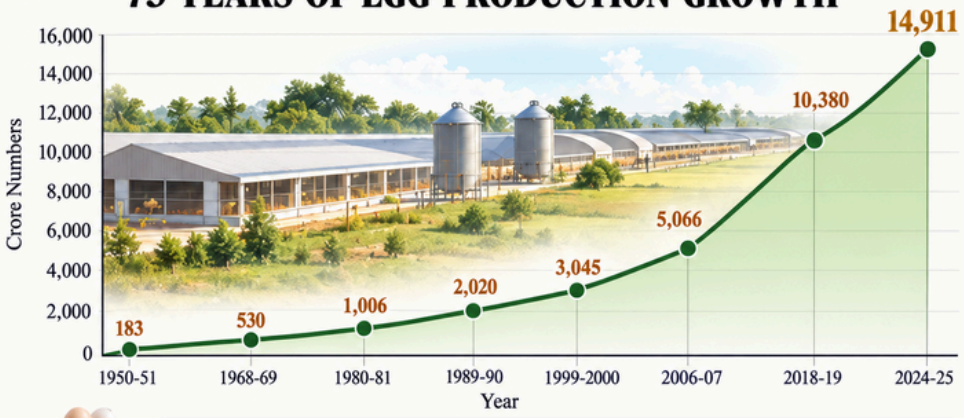
India’s Egg Revolution - from 183 cr (1950-51) to 14,911 cr eggs (2024-25)

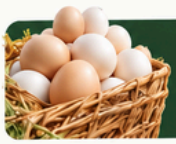
DATA STORY 13

From just 183 crore eggs in 1950–51 to 14911 crore in 2024–25, India’s egg story is one of sustained long-term growth. Production has expanded nearly 81-fold over 75 years, while per-capita availability increased from 5 to 106 eggs per year. Today, India ranks as the world’s second-largest egg producer after China — a sign of the rising economic and nutritional significance of the poultry sector.

14,911 cr nos.	81 x	6.1%	#2	106
EGG PRODN 2024-25	GROWTH SINCE 1950	LONG-TERM CAGR	WORLD RANK	EGGS PER PERSON
From 183 cr in 1950-51	From 183 cr to 14911 cr	1950-51 to 2024-25	Behind only China	Up from 51 (2009-10)

75 YEARS OF EGG PRODUCTION GROWTH





Egg production increased by **14,728 crore numbers** since 1950-51.

KEY MILESTONES ON INDIA’S EGG JOURNEY



Crossed **1,000 Cr** in 1980-81



Crossed **3,000 Cr** in 1999-2000



Crossed **5,000 Cr** in 2006-07



Crossed **10,000 Cr** in 2018-19

CONNECTS TO DATA STORY #06

The same species drives all three growth stories now on record in this Atlas: Story #06 found poultry was India's fastest-growing species by population (+16.8%); and data shows that poultry dominates meat output (49.3% share); this story shows poultry's other product — eggs — growing faster still, at 6.1% CAGR, ahead of both milk and meat. Three separate datasets, the same species, the same direction.

Source: BAHS 2025, Department of Animal Husbandry & Dairying (DAHD), Government of India — State-wise egg production series, 2009–10 to 2024–25. World rankings: FAO / industry estimates, 2024.

The Fastest-Growing Protein

Among India's three major livestock products, eggs have grown the fastest over the past decade and a half — outpacing milk and meat in percentage terms even as those categories have also expanded substantially in absolute volume.

Commercial Poultry changed the scale: The biggest acceleration came with improved layer breeds, scientific management, feed efficiency and organised farms.

India is the world's second-largest egg producer: by count, India trails only China (61,700 crores) and sits just ahead of Indonesia (14,600 crores) — a genuinely close margin at #2 and #3, with the United States (10,800 crores) further behind at #4.

A 6.1% CAGR outpaces both milk and meat: Story #08 found milk's growth rate has decelerated toward 3.5-4.5% in recent years and meat growing at a steady 4.6%. Eggs are the one product where growth hasn't shown the same signs of slowing.

Per-capita availability has risen sharply, but a real gap to global leaders remains: India reached about 106 eggs per person annually in 2024-25 — genuine progress, but still well below China's roughly 280 eggs per person and higher consumption levels in the United States.

Why eggs scale faster than milk or meat: short production cycles, relatively low capital intensity per unit of output, and strong domestic demand all support rapid expansion of commercial layer farming in a way that's structurally harder to replicate in dairy or meat production, which depend on slower-breeding, higher-maintenance animals.

Data Table

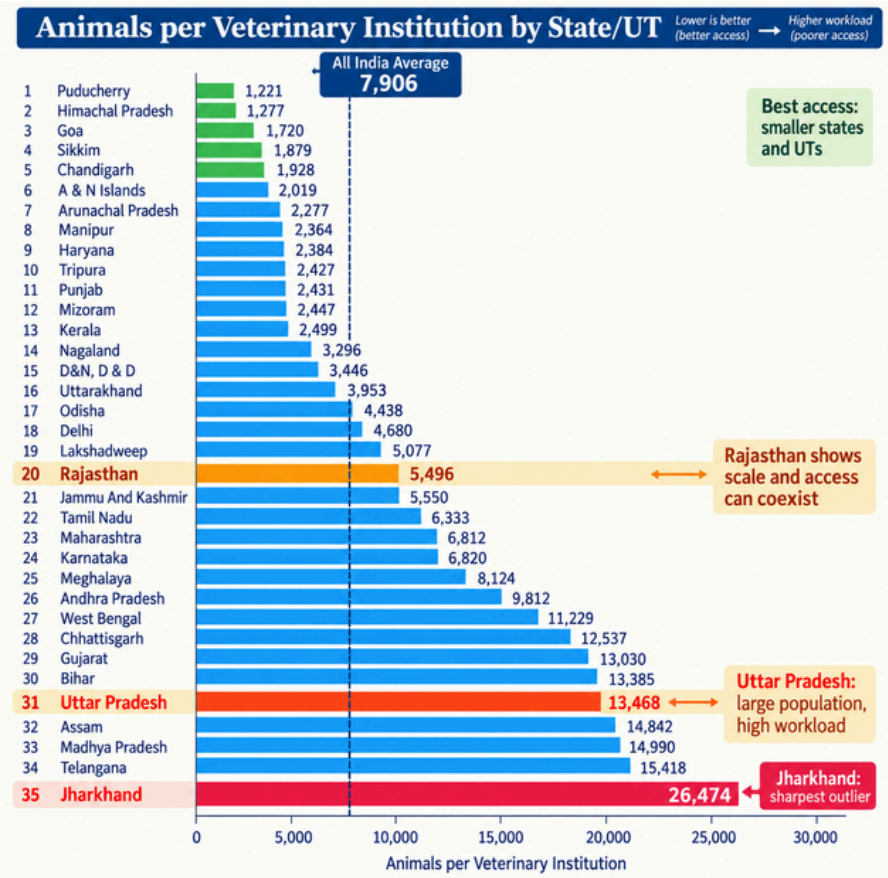
Year	Egg Production (Lakh Crores)	Per-Capita Availability (eggs/year)	Growth vs 1950–51
1950–51	183	5	1.0×
1980–81	1006	15	5.5×
1989–90	2020	25	11.0×
1999-2000	3045	30	16.6×
2003–04	4040	38	22.1×
2006–07	5066	45	27.7×
2009–10	6027	51	32.9×
2012-13	6973	57	38.1×
2018–19	10380	79	56.7×
2021–22	12960	95	70.8×
2022–23	13838	101	75.6×
2024–25	14911	106	81.5×

Source: BAHS 2025, Department of Animal Husbandry & Dairying (DAHD), Government of India — State-wise egg production series, 2009–10 to 2024–25. World rankings: FAO / industry estimates, 2024.

How Far Is Nearest Vet?

Across India, one Veterinary Institution serves anywhere from 1,221 animals in Puducherry to over 26,000 in Jharkhand - a 22-fold gap in Veterinary workload between States, with the same national infrastructure spread very unevenly on the ground.

7,906	67,889	53.68 CR	1,221	87,899
ANIMALS PER VETY INSTITUTION - ALL INDIA	VETY INSTITUTIONS NATIONWIDE	TOTAL LIVESTOCK COVERED	BEST RATIO - PUDUCHERRY	REGISTERED VETERINARY DOCTORS



WHY THIS STORY MATTERS FOR THE ATLAS

Every livestock number in this Atlas — output, income, exports — depends on animals staying healthy. This story locates where that healthcare backbone is thinnest: not always where livestock populations are largest, but where institutional density has not kept pace with them. States like Rajasthan show that building out Veterinary infrastructure alongside herd growth, rather than after it, is what keeps the ratio manageable.

"A herd is only as healthy as the Vet who can actually reach it"

VETERINARY INFRASTRUCTURE — THE QUIET BACKBONE OF INDIA'S LIVESTOCK ECONOMY

Source: Rajya Sabha Starred Question No. 206 (19.03.2025), Annexure I, DAHD; 20th Livestock Census 2019, Annual Report 2025-26, DAHD, GoI on Regd Vety Practitioners | GFST Analysis & Visualisation.

One Vety Institution, Wildly Different Workloads

India's 67,889 veterinary institutions serve 53.68 crore livestock nationwide — but the workload each one carries ranges from just over a thousand animals in Puducherry to more than 26,000 in Jharkhand, with direct implications for disease response, animal health and the rural livelihoods that depend on both.

Smaller states and UTs lead on Veterinary access — Puducherry (1,221), Himachal Pradesh (1,277), Goa (1,720), Sikkim (1,879) and Chandigarh (1,928) all keep animals-per-institution well under a quarter of the national average — likely reflecting smaller geographic size and denser institutional networks relative to their livestock population.

Jharkhand is a clear outlier at the other end — At 26,474 animals per institution, Jharkhand's veterinary workload is more than 3.3× the national average and 22× Puducherry's — the widest single-state departure from the national norm in this dataset.

Rajasthan shows scale and access aren't opposites — Rajasthan operates 10,335 veterinary institutions — by far the most of any state — for 5.68 crore livestock, giving it a ratio of 5,496, better than the national average despite carrying India's largest state livestock population.

Infrastructure density matters more than livestock size alone — Uttar Pradesh has India's largest livestock population (6.80 crore) and one of the worst ratios (13,468); Rajasthan's population is nearly as large (5.68 crore) but its ratio is under half of UP's — the gap is driven by institutional density, not herd size.

Ladakh is a data gap, not a zero-workload state — Ladakh reports 140 veterinary institutions in this dataset but no separate livestock count — likely a reporting artifact of the Jammu & Kashmir/Ladakh bifurcation — and has been excluded from every ranking and average on this page rather than shown as a misleading zero.

Data Table

S.No	States/UTs	Total Livestock (Lakhs)	Vety Institutions	Animals per Vety Insti.	Regd Vet Practitioners (31.03.2024)
1	Puducherry	1.51	124	1221	592
2	Himachal Pradesh	44.13	3456	1277	1450
3	Goa	1.32	77	1720	261
4	Sikkim	2.74	146	1879	191
5	Chandigarh	0.27	14	1928	13
6	A & N Islands	1.45	72	2019	66
7	Arunachal Pradesh	11.61	510	2277	245
8	Manipur	5.51	233	2364	582
9	Haryana	70.46	2956	2384	2571
10	Tripura	13.18	543	2427	558
11	Punjab	70.5	2900	2431	4947
12	Mizoram	3.6	147	2447	379
13	Kerala	29.09	1164	2499	5395
14	Nagaland	5.54	168	3296	368
15	D&N, D & D	0.52	15	3446	05
16	Uttarakhand	44.27	1120	3953	1236
17	Odisha	181.7	4094	4438	2882
18	Delhi	3.6	77	4680	585
19	Lakshadweep	0.46	9	5077	35
20	Rajasthan	568.01	10335	5496	5669
21	Jammu And Kashmir	83.25	1500	5550	1242
22	Tamil Nadu	245.01	3869	6333	6610
23	Maharashtra	330.8	4856	6812	11242
24	Karnataka	290.13	4254	6820	5082
25	Meghalaya	20.39	251	8124	449
26	Andhra Pradesh	340.68	3472	9812	5643
27	West Bengal	374.83	3338	11229	2724
28	Chhattisgarh	158.72	1266	12537	1298
29	Gujarat	268.93	2064	13030	4743
30	Bihar	365.41	2730	13385	3586
31	Uttar Pradesh	680.13	5050	13468	7421
32	Assam	180.92	1219	14842	3208
33	Madhya Pradesh	406.37	2711	14990	3266
34	Telangana	326.41	2117	15418	2306
35	Jharkhand	236.15	892	26474	972
36	Ladakh	NA	140	NA	77
All India		**5367.61**	**67889**	**7906**	**87899**

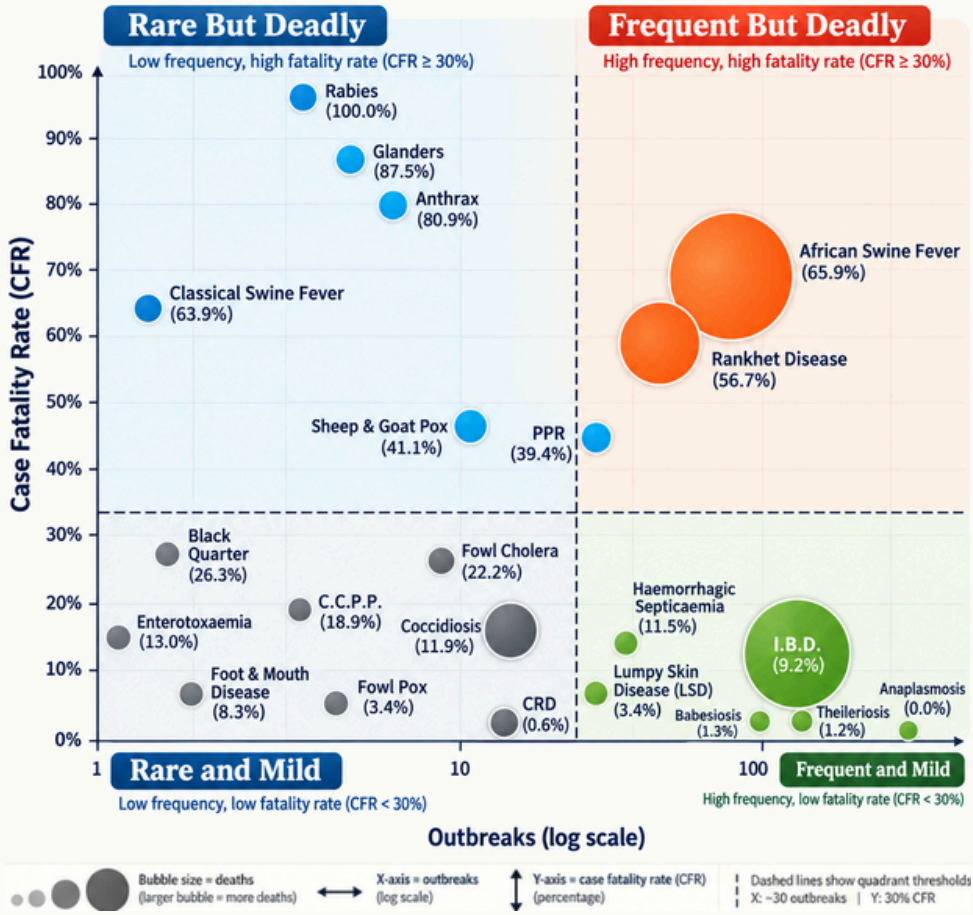
Source: Rajya Sabha Starred Question No. 206 (19.03.2025), Annexure I, DAHD; 20th Livestock Census 2019, Annual Report 2025-26, DAHD, GoI on Regd Vety Practitioners | GFST Analysis & Visualisation.

Animal Diseases: How Often, How Deadly

DATA STORY 15

Across 27 livestock diseases reported in Jan-June 2025, how often a disease strikes does not predict how deadly it is. Three diseases, African Swine Fever, Infectious Bursal Disease and Ranikhet, caused 87% of the 26,578 deaths reported.

100%	215 OUTBREAKS	11,018 DEATHS	6,764 DEATHS	66 OUTBREAKS
RABIES - HIGHEST CFR Most lethal disease in the Dataset	**ANAPLASMOSIS** Highest number of recorded Out Breaks during the period	**AFRICAN SWINE FEVER** Highest death toll in the dataset	**INFECTIOUS BURSAL DISEASE** Largest Avian Burden by deaths	**AFRICAN SWINE FEVER** Both frequently and deadly in the swine population



CONNECTS TO DATA STORY # 14

Data Story #14 revealed a 22-fold gap in animals per veterinary institution across India. Story #15 adds the disease perspective: outbreak frequency alone does not indicate mortality burden. Together, they make the case for strengthening veterinary access alongside disease-specific surveillance, prevention and rapid response.

Source: Department of Animal Husbandry and Dairying, Annual Report 2025–26, Annexure XI, "Species-wise incidence of livestock diseases in India during 2025 (January–June)", state-reported. Compiled for the Atlas. CFR, shares of deaths, and correlations (Pearson on raw counts; Spearman on ranks), quadrant cut-offs (30 outbreaks, 30% CFR), sensitivity excluding destroyed animals.

Frequency and Lethality Are Different Questions

Outbreak counts say how often a disease strikes, not how dangerous it is. Across 27 diseases reported in January–June 2025 the two are unrelated, and most deaths come from three diseases, two of them in poultry.

Frequency does not predict lethality — Across the 27 diseases, outbreak count and case-fatality rate (CFR, deaths ÷ animals attacked) show no clear link: Pearson r = −0.21 (p = 0.29), Spearman ρ = +0.09 (p = 0.67). With 27 points and extreme outliers, the safe reading is "no detectable relationship".

Rare diseases can be deadly, but on tiny numbers — Rabies (7 attacked, 7 died), glanders (8 attacked, 7 died) and anthrax (115 attacked, 93 died) each had fewer than 10 outbreaks. Five diseases had 8 or fewer animals attacked, so their CFRs rest on a handful of cases. Rabies in dogs is also widely thought to be under-reported.

The common diseases are often mild — Anaplasmosis (215 outbreaks, the most of any disease), theileriosis (127) and babesiosis (99) together attacked 896 animals and killed 7. Six of the 27 diseases reported no deaths at all.

Three diseases carry the death toll — African swine fever (11,018 deaths, 41.5%), infectious bursal disease (6,764, 25.4%) and Ranikhet (5,224, 19.7%) make up 86.6% of the 26,578 deaths. Only ASF and Ranikhet are both frequent (30+ outbreaks) and deadly (CFR of 30%+).

Count deaths, not just outbreaks — Ranked by outbreaks, anaplasmosis comes first (215) and African swine fever fifth (66). Ranked by deaths, swine fever is first (11,018) and anaplasmosis has none. Tracking both shows where animals are really being lost, and three diseases hold 87% of the deaths reported.

Data Table

Disease	Main species	Outbreaks	Attacked	Deaths	CFR %	Share of deaths
Rabies	Bovine/Canine	5	7	7	**100.00%**	<0.1%
Glanders	Equine	7	8	7	**87.50%**	<0.1%
Anthrax	Bovine/Sheep-goat	9	115	93	**80.90%**	0.30%
African Swine Fever	Swine	66	16,707	11,018	**65.90%**	41.50%
Classical Swine Fever	Swine	4	72	46	**63.90%**	0.20%
Ranikhet Disease	Poultry	40	9,213	5,224	**56.70%**	19.70%
Sheep & Goat Pox	Sheep-goat	13	664	273	**41.10%**	1.00%
PPR	Sheep-goat	29	971	383	**39.40%**	1.40%
Black Quarter	Bovine	3	19	5	**26.30%**	<0.1%
Fowl Cholera	Poultry	12	1,092	242	**22.20%**	0.90%
C.C.P.P.	Sheep-goat	5	53	10	**18.90%**	<0.1%
Enterotoxaemia	Sheep-goat	2	23	3	**13.00%**	<0.1%
Coccidiosis	Poultry	16	11,941	1,416	**11.90%**	5.30%
Haemorrhagic Septicaemia	Bovine	46	87	10	**11.50%**	<0.1%
I.B.D.	Poultry	125	73,435	6,764	**9.20%**	25.40%
Foot & Mouth Disease	Bovine/Swine	6	84	7	**8.30%**	<0.1%
Fowl Pox	Poultry	10	1,719	59	**3.40%**	0.20%
Lumpy Skin Disease	Bovine	20	561	19	**3.40%**	<0.1%
Babesiosis	Bovine	99	231	3	**1.30%**	<0.1%
Theileriosis	Bovine	127	331	4	**1.20%**	<0.1%
CRD	Poultry	19	175,450	985	**0.60%**	3.70%
Blue Tongue	Sheep-goat	2	6	0	**0.00%**	0.00%
Marek's Disease	Poultry	1	63	0	**0.00%**	0.00%
Trypanosomiasis	Bovine	3	3	0	**0.00%**	0.00%
Mange	Bovine	1	1	0	**0.00%**	0.00%
Anaplasmosis	Bovine	215	334	0	**0.00%**	0.00%
Brucellosis	Bovine	6	43	0	**0.00%**	0.00%
All 27 diseases		**891**	**293,233**	**26,578**	**9.10%**	**100%**

Source: Department of Animal Husbandry and Dairying, Annual Report 2025–26, Annexure XI, "Species-wise incidence of livestock diseases in India during 2025 (January–June)", state-reported. Compiled by the Atlas. CFR, shares of deaths, and correlations (Pearson on raw counts; Spearman on ranks), quadrant cut-offs (30 outbreaks, 30% CFR), sensitivity excluding destroyed animals.

India's Livestock Tech Stack Goes Live

DATA STORY 16

India is building a digital nervous system for its livestock economy - connecting animal identity, health, statistics veterinary services and real-time dashboards to create healthier animals, stronger farmer livelihoods and a more resilient livestock sector.

174.5 CR	9.96 CR	19,398	4.8 CR	~28,400
VACCINATIONS RECORDED BHARAT PASHUDHAN	LIVESTOCK OWNERS REGISTERED IN BHARAT PASHUDHAN	STAFF ENROLLED IN APP-BASED ATTENDANCE - RAJASTHAN & AP	HOUSEHOLDS SURVEYED E-LISS STATISTICS	ACTIVE ENUMERATORS E-LISS SURVEY



WHY THIS STORY MATTERS FOR THE ATLAS

National tools are now matched by State Dashboards : Andhra Pradesh scores its Animal Husbandry Department with 17 KPIs. APFRS App tracks all field functionaries clock-in and clock-out for better livestock service delivery, while Rajasthan attendance app also covers all field institutions.
The next question is whether these numbers change field services.

"The tools are built. The next job is getting them to every farmer"
LIVESTOCK LATEST TECHNOLOGIES — THE QUIET BACKBONE OF INDIA'S LIVESTOCK ECONOMY

Sources: DAHD, Bharat Pashudhan, ICAR-NIVEDI, eLISS, APFRS, RajSSO-AMS, Swarna Andhra, Stellapps, and NITI Aayog. Dashboard figures reflect their stated reporting dates; startup reach figures are company-reported.

India's Livestock Goes Digital

The latest technological tools in livestock now cover identity, vaccination records, disease forecasting, counting, estimating livestock products, tracing, staff attendance and department scores based on Key Performance Indicators, with startups adding farm-level sensors. ***The test now is use: how many farmers and states rely on them every day.***

Every animal has a digital record — By 8 Oct 2026, 61.20 crore animals were on the Bharat Pashudhan database, 39.16 crore with individual IDs and 22.05 crore in flocks, with 9.94 crore owners. It holds 173.8 crore vaccinations, 85% of them for foot-and-mouth disease, and a 1962 app shows farmers each animal's history by QR code.

Disease is predicted, not just reported — ICAR-NIVEDI's NADRES uses AI and machine learning to forecast 13 major livestock diseases across districts, enabling early preventive action. It won the National e-Governance Gold Award in 2025. National serosurveillance covers five diseases: FMD, brucellosis, PPR, bluetongue and classical swine fever.

Livestock Statistics go digital with real-time Survey monitoring — The eLISS platform for generating estimates of major livestock products viz., milk, meat and egg, reports 4.8 crore+ households/enterprises surveyed across 2.81 lakh+ villages/wards, using 28,400+ enumerators and 10,400+ supervisors, covering 70,000+ commercial poultry farms.

Staff attendance is now live data — Andhra Pradesh's (AP Face Recognition System) marks 5,158 of 7,202 enrolled Animal Husbandry staff (71.6%) clocked in on 8 Oct 2026. Rajasthan's RajSSO-AMS covers 12,196 staff in 10,133 offices; 1,903 (15.6%) had marked attendance in a Saturday-morning snapshot on 17 Oct 2026, so the two are not like-for-like. DAHD uses biometric attendance in many of its offices.

Performance dashboards meet livestock startups — Andhra Pradesh's Swarna Andhra dashboard reported 99 (A+) across 17 Animal Husbandry indicators for September 2026. Bengaluru-based Stellapps reports technology supporting 20 lakh farmers and 1.10 crore litres of milk daily. Animall reports reaching 80 lakh+ farmers and facilitating 10 lakh+ cattle sales, while Rajasthan's Krimanshi develops innovative animal-feed solutions.

Data Table

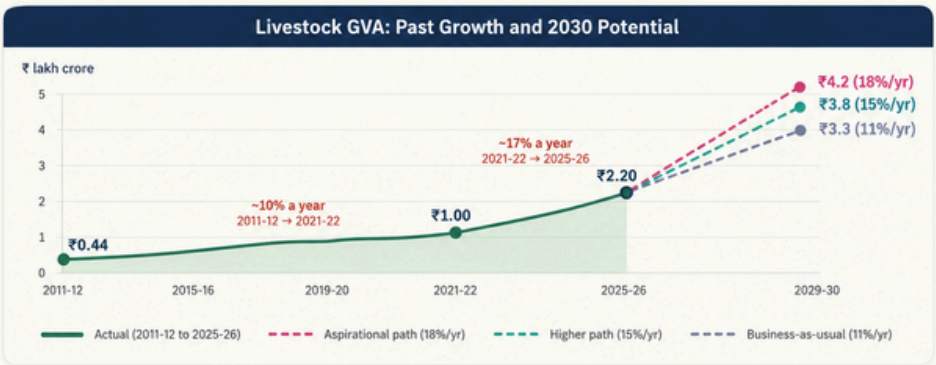
Technology	Run by	What the farmer gets	Key number (date)
Bharat Pashudhan	DAHD with NDDB	12-digit animal ID; vaccination, treatment and ownership records	61.20 crore animals; 9.94 crore owners (8 Oct 2026)
1962 farmer app	DAHD	Animal history by QR code; scheme information; Pashupedia	Same database as Bharat Pashudhan
NADRES v2	ICAR-NIVEDI	Early warnings, heat maps and vet alerts	13 diseases forecast in all districts
eLISS survey	DAHD	Milk, meat, egg and wool estimates down to district level	4.8 crore households; 2.81 lakh villages/wards
21st Livestock Census app	DAHD	Real-time count including pastoral holdings and women's role	87,613 enumerators; 16,453 supervisors (Oct 2024)
Biometric attendance	DAHD	Staff presence tracking in subordinate offices	18 of 34 offices (Annual Report 2025–26)
APFRS	Govt of Andhra Pradesh	Staff clock-in and clock-out, by department and district	5,158 of 7,202 clocked in, 71.6% (8 Oct 2026)
Swarna Andhra KPI dashboard	AP Planning Department	Monthly score for each department on set indicators	Animal Husbandry: 99, A+, 17 indicators (Sep 2026)
RajSSO-AMS	Govt of Rajasthan, DoIT&C	Attendance app replacing the paper register	12,196 staff; 10,133 offices; 15.6% marked (live, 17 Oct 2026)
SmartMoo (Stellapps)	Startup, Bengaluru	IoT sensors, milk procurement and cold chain tools	2+ billion litres of milk a year (company claim)

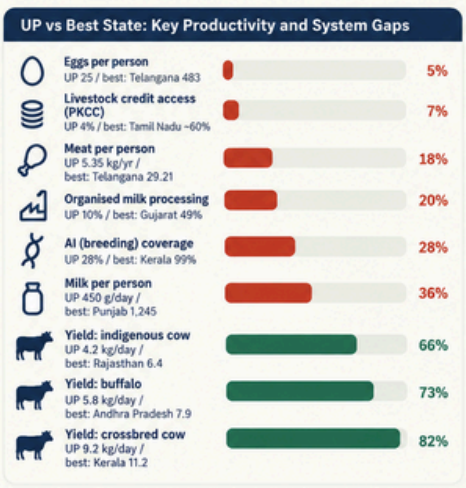
Sources: DAHD, Bharat Pashudhan, ICAR-NIVEDI, eLISS, APFRS, RajSSO-AMS, Swarna Andhra, Stellapps, and NITI Aayog. Dashboard figures reflect their stated reporting dates; startup reach figures are company-reported.

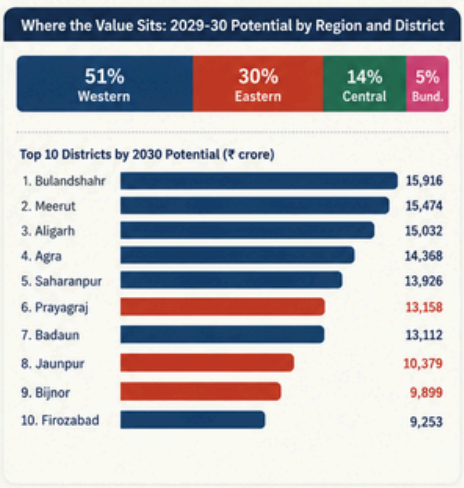
Uttar Pradesh : Biggest Herd, Biggest Headroom

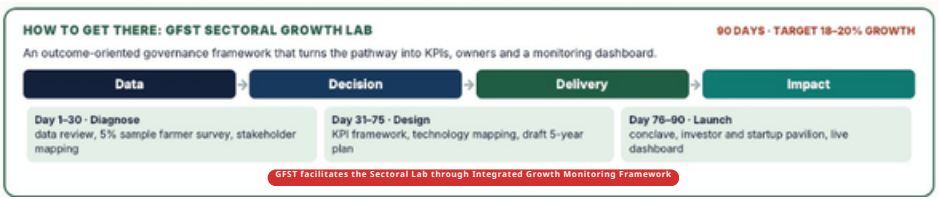
Uttar Pradesh leads India in milk production, generating ₹2.2 lakh crore in livestock GVA. However, limited processing, breeding coverage, credit access and fodder shortages constrain growth. Addressing these gaps could unlock ₹4.2 lakh crore by 2030.

388	2.2	10%	96%	4.2
Lakh MTs	Lakh Crores			Lakh Crores
India's Largest Milk Producer	Livestock GVA 2025-26	Organised Milk Processing	Households out of PKCC Credit	Livestock GVA Potential by 2030









"The herd is built. Now build the system around it"

UP's yields are within reach of the best states; The distance is in processing, breeding, protein and credit

Sources: BAHS 2025, DAHD, GoI; MoSPI GVA series; GFST analysis & visualization.

The Gap Is Systems, Not Yield

UP's cows and buffaloes give 66–82% of the best state's milk, but its processing, breeding coverage, protein supply and credit reach only 5–36% of the best. The next ₹2 lakh crore depends on the system around the animal, more than on the animal itself.

The herd is already first — UP makes 388.15 lakh tonnes of milk (rank 1), 12.81 lakh tonnes of meat (rank 2) and 611 crore eggs (rank 8). Dairy is 84% of its livestock economy, and livestock GSVA has grown five-fold, from ₹0.44 lakh crore in 2011-12 to ₹2.20 lakh crore in 2025-26.

Growth has already shifted gear — From the dossier's series, GSVA grew about 10% a year to 2021-22 and about 17% a year since. The 18% 'aspirational' path to ₹4.2 lakh crore asks UP to hold the recent pace; the 11% business-as-usual path would mean slowing down.

Yield is not the widest gap — Yields are 66% (indigenous cow), 73% (buffalo) and 82% (crossbred cow) of the best state. Processing is 20%, AI coverage 28%, milk per person 36% (450 g/day vs Punjab's 1,245), meat 18% and eggs 5%.

Credit is the narrowest door — About 6.12 lakh operative animal-husbandry KCCs serve 1.60 crore livestock households, roughly 4%; 96% are excluded against about 40% in Tamil Nadu. The 2030 goal is 1 crore PKCCs, from 6 lakh in 2024, with ₹1 of credit estimated to add ₹2.5–3.0 of GVA.

Named levers cover about a fifth — Aspirational growth adds ₹0.9 lakh crore over business-as-usual (₹4.2 vs ₹3.3 lakh crore). The sized levers are about ₹3,000 crore (processing 10% → 25% at ₹200 crore per point) plus ~₹16,000 crore (buffalo yield gap): about ₹19,000 crore, or roughly 21% of ₹90,000 crore. The rest is not yet sized.

Data Table

Indicator	Uttar Pradesh	Best state	UP as % of best
Per Capita Availability : Eggs	25 / yr	Telangana 483	5%
Livestock credit access (PKCC)	4%	Tamil Nadu ~60%	7%
Per Capita Availability : Meat	5.35 kg/yr	Telangana 29.21	18%
Organised milk processing	10%	Gujarat 49%	20%
AI (breeding) coverage	28%	Kerala 99%	28%
Per Capita Availability : Milk	450 g/day	Punjab 1,245	36%
Yield: indigenous cow	4.2 kg/day	Rajasthan 6.4	66%
Yield: buffalo	5.8 kg/day	Andhra Pradesh 7.9	73%
Yield: crossbred cow	9.2 kg/day	Kerala 11.2	82%
Overall feed deficit	37% deficit	Punjab (surplus)	—

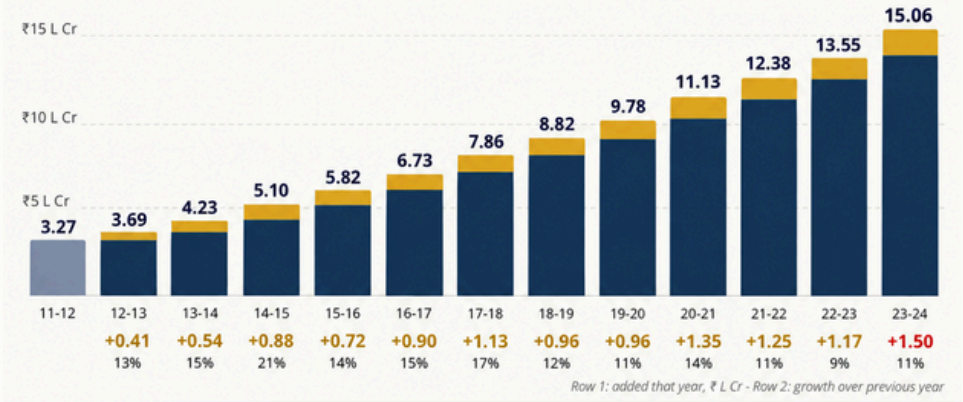
Sources: BAHS 2025, DAHD, GoI; MoSPI GVA series; GFST analysis & visualization.

Livestock's ₹15-Lakh-Crore Climb

Livestock GVA nearly quintupled in twelve years - from ₹3.27 to ₹15.06 lakh crore without one down year - making it one of the steadiest engines in the Indian economy. The last ₹5 lakh crore took only three years.

₹ 15.06 Lakh Cr	4.6 x	12.8%	5.5%	8 CRORE
LIVESTOCK GVA 2023-24, Current Prices	**SINCE 2011-12** From ₹3.27 Lakh Cr; 2.2 x in real terms	**DECADAL CAGR** Sustained, since 2014-15	**SHARE OF GDP** 2023-24 (peaked 6.11% in 2020-21)	**FAMILIES** Depend on Livestock for livelihood

1 · THE STAIRCASE: LIVESTOCK GVA, ₹ LAKH CRORE, CURRENT PRICES

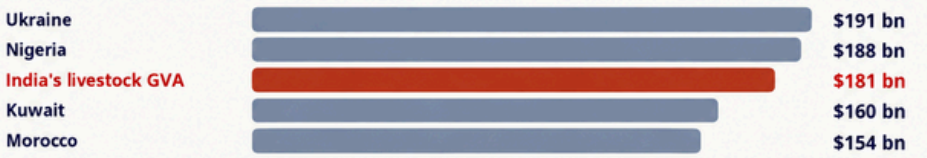


Row 1: added that year, ₹ L Cr - Row 2: growth over previous year

2 · THE LADDER: HOW FAST EACH ₹5 LAKH CRORE ARRIVED

₹5 L Cr crossed in 2014-15	3 years	from ₹3.27 L Cr
₹10 L Cr crossed in 2020-21	6 years	for the next ₹5 L Cr
₹15 L Cr crossed in 2023-24	3 years	twice as fast as before

3 · IF LIVESTOCK WERE A COUNTRY: US$ BILLION, ROUGH SCALE



₹15.06 L Cr at about ₹83 a dollar is ~US$181 bn: between Nigeria and Kuwait, near the 57th-largest economy. A value-added comparison, not a full GDP, and not a ranking.

If livestock were a country: at ~US$181 bn (2023-24), it would be roughly a 57th-largest-economy scale.

Source: BAHS 2025, DAHD, GoI; MoSPI National Accounts, Provisional Estimates (May 2025); GDP-scale comparision uses 2024 World Bank nominal-GDP rankings; GFST calculations.

The Quiet Rise of a ₹15-Lakh-Crore Economy

India's Livestock GVA grew from ₹3.27 lakh crore in 2011-12 to ₹15.06 lakh crore in 2023-24, a 4.6× rise at current prices. It never fell, and it kept growing through the pandemic year.

- **No down year in twelve —** Livestock GVA rose every year from ₹3.27 lakh crore (2011-12) to ₹15.06 lakh crore (2023-24): 13.6% a year over twelve years, 12.8% since 2014-15. The slowest year was 9.5% (2022-23); the fastest 20.7% (2014-15).
- **The yearly addition nearly quadrupled —** The sector added ₹0.41 lakh crore in 2012-13 and ₹1.50 lakh crore in 2023-24, 3.7 times as much. That one year's gain equals 46% of the whole 2011-12 sector. The first ₹5 lakh crore took 3 years, the second 6, the third 3.
- **Livestock strengthened during the COVID shock:** Its share of national GVA reached 6.11% in 2020–21, when India's overall GDP contracted.
- **A livelihood engine, not just an output number:** Around 8 crore households across India depend on Livestock Sector.
- **The bigger message:** Economic scale, resilience, inclusive growth and rural reach make livestock far more than a conventional agricultural subsector.

Data Table

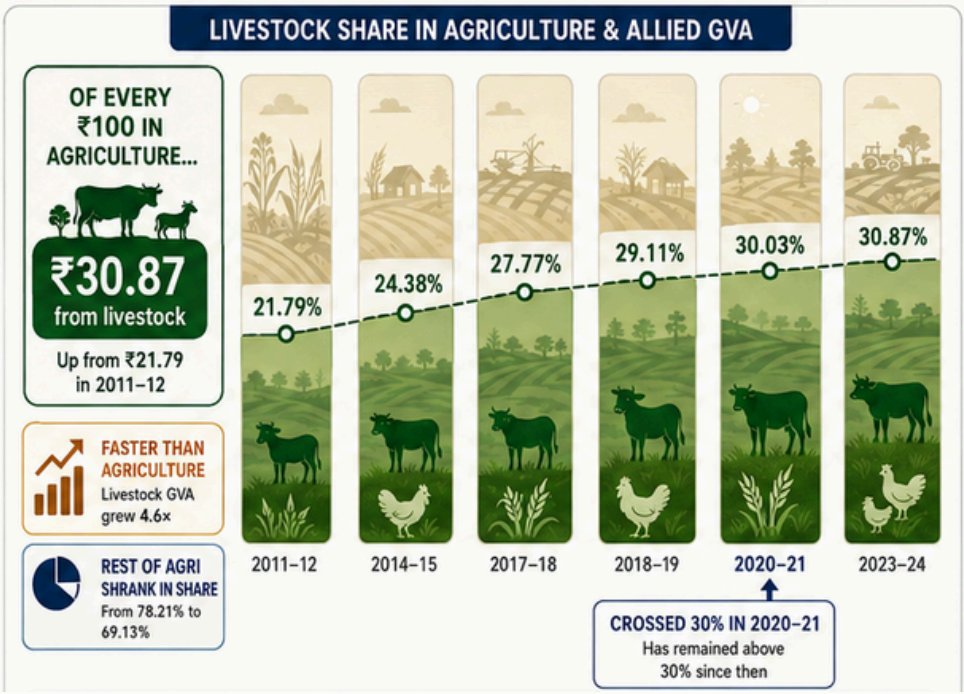
Year	GVA ₹ L Cr	Growth	Added ₹ L Cr	% of GVA	% of Agri & Allied
2011-12	3.27	–	–	4.04%	21.8%
2012-13	3.69	12.7%	+0.42	4.01%	22.0%
2013-14	4.23	14.6%	+0.54	4.08%	21.9%
2014-15	**5.10**	**20.7%**	+0.88	4.44%	24.4%
2015-16	5.82	14.1%	+0.72	4.63%	26.1%
2016-17	6.73	15.5%	+0.90	4.82%	26.7%
2017-18	7.86	16.8%	+1.13	5.07%	27.8%
2018-19	8.82	12.3%	+0.96	5.14%	29.1%
2019-20	9.78	10.9%	+0.96	5.32%	29.0%
2020-21	**11.13**	13.8%	+1.35	**6.11%**	30.0%
2021-22	12.38	11.3%	+1.25	5.72%	30.2%
2022-23	13.65	10.2%	+1.26	5.54%	30.6%
2023-24	**15.06**	10.3%	**+1.41**	5.49%	**30.9%**

Source: BAHS 2025, DAHD, GoI; MoSPI National Accounts, Provisional Estimates (May 2025); GDP-scale comparision uses 2024 World Bank nominal-GDP rankings.

Livestock Takes A Bigger Agri Slice

Livestock now contributes nearly ₹31 of every ₹100 generated by India's Agriculture & Allied sector, up from ₹21.79 twelve years earlier.

21.79%	30.87%	9.08 pts	30%	2.13 pts
OF AGRI GVA 2011-12, Current Prices	OF AGRI GVA 2023-24, Current Prices	SHARE GAIN in 12 years	2020-21 30% crossed first time	TO ONE-THIRD still to go



- **Nearly one rupee in three —** livestock is 30.87% of India's agricultural GVA (2023-24), its single biggest component.
- **+9 points in twelve years —** up from 21.8% in 2011-12: a structural shift, not a blip.
- **The rest is receding —** everything else in agriculture (crops, fishery, forestry) slipped from 78% to 69% of the farm economy as livestock rose.
- **From supplement to mainstay —** what was once a household add-on now anchors Indian agriculture.

Source: BAHS 2025, DAHD, GoI; MoSPI National Accounts, GFST Analysis.

The Engine of Agricultural Growth

Indian agriculture isn't growing evenly. One part is consistently outpacing the rest — and it isn't crops.

- **A 9-point structural shift:** livestock's share of Agriculture & Allied GVA increased from 21.79% to 30.87%, a gain of 9.08 percentage points.
- **Livestock grew faster than agriculture:** livestock GVA expanded 4.6×, compared with 3.25× for Agriculture & Allied GVA; the rest of agriculture grew about 2.87×.
- **The 30% barrier has already fallen:** livestock first crossed 30% in 2020–21 (30.03%) and has remained above that mark since.
- **India's farm economy is rebalancing:** activities outside livestock fell from 78.21% to 69.13% of Agriculture & Allied GVA—not because they shrank, but because livestock grew faster.
- **The next symbolic landmark is one-third:** livestock is now only 2.13 percentage points short of contributing one-third of Agriculture & Allied GVA.

Data Table

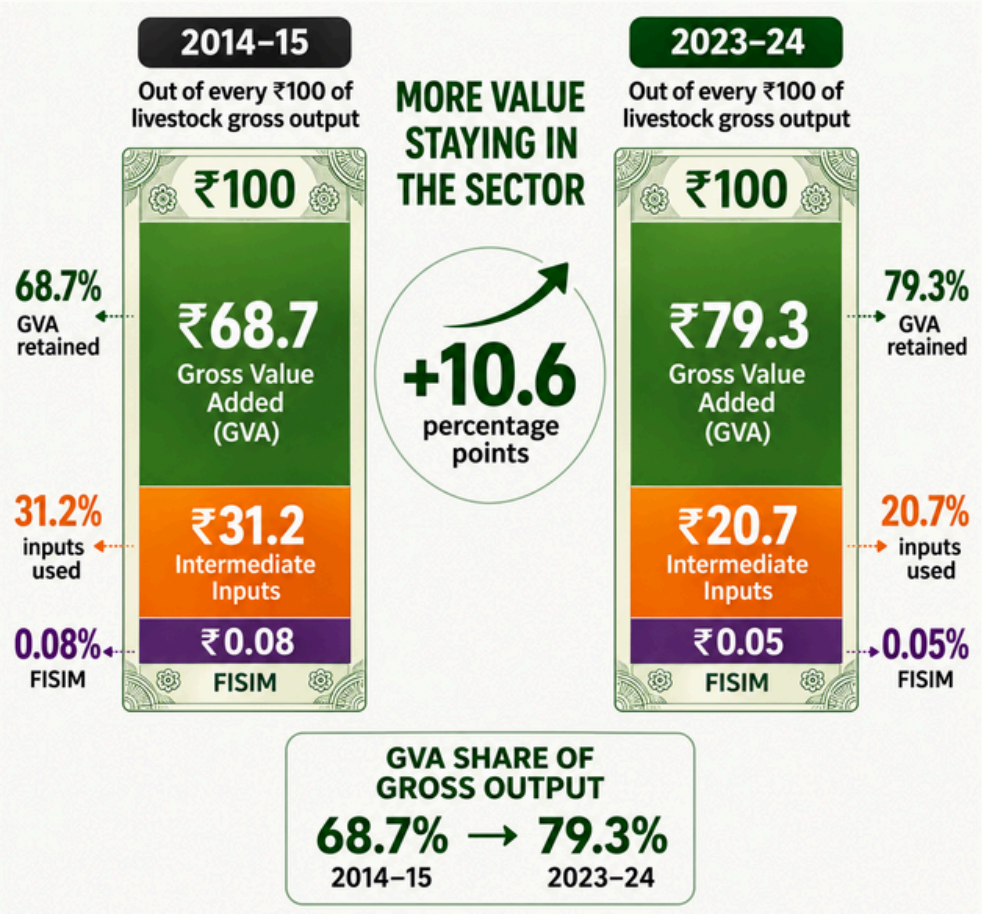
Year	Livestock GVA (₹ Lakh Cr)	Agriculture & Allied GVA (₹ Lakh Cr)	Livestock Share
2011–12	3.27	15.02	21.79%
2012–13	3.69	16.75	22.02%
2013–14	4.23	19.26	21.94%
2014–15	5.10	20.94	**24.38%**
2015–16	5.82	22.28	26.15%
2016–17	6.73	25.19	26.70%
2017–18	7.86	28.30	**27.77%**
2018–19	8.82	30.30	29.11%
2019–20	9.78	33.69	29.03%
2020–21	**11.13**	**37.07**	**30.03%**
2021–22	12.38	41.00	30.21%
2022–23	13.65	44.49	30.67%
2023–24	**15.06**	**48.78**	**30.87%**

Source: BAHS 2025, DAHD, GoI; MoSPI National Accounts, GFST Analysis.

Where Does Every ₹100 of Livestock Output Go?

Of every ₹100 the sector produces, ₹79 is now kept as value added, up from ₹69 in 2024-25. Feed dominates the cost of producing livestock output — but the sector is retaining more value than a decade ago.

₹ 18.99 Lakh Cr	₹ 79.3	₹ 20	₹ 2.0 Lakh Cr	86%
GROSS OUTPUT 2023-24; 2.56x the 2014-15 level	**KEPT AS VALUE ADDED** out of every ₹100; was ₹68.7	**GOES TO FEED** per ₹100 of output; was ₹30.5	**FEED BILL AVOIDED** 2023-24, vs the 2014-15 feed share	**OF NEW OUPUT KEPT** of each extra ₹100 became GVA



₹97 of every ₹100 of intermediate inputs was feed.
In 2023-24, feed accounted for 96.9%, repairing & operating costs 3.10%, and market charges 0.04%.

Source: BAHS 2025, DAHD, MoSPI national accounts, ₹ crore); GVA = output − inputs − FISIM. Shares, growth rates are GFST calculations.

Feed Shapes the Economics Behind Livestock

After inputs and FISIM are deducted, ₹15.06 lakh crore of the ₹18.99 lakh crore output remained as GVA in 2023-24. Feed is almost all the input bill; its share of output fell by a third.

₹79 of every ₹100 is now kept — Gross output was ₹18.99 lakh crore in 2023-24; after inputs and FISIM, ₹15.06 lakh crore remained as GVA. The share kept rose from 68.7% to 79.3%, a gain of 10.6 percentage points.

Feed is the cost, almost all of it — Feed was ₹3.80 lakh crore, or 96.9% of the ₹3.93 lakh crore input bill; repairs and other costs were ₹12,169 crore and market charges ₹159 crore. Feed fell from ₹30.5 to ₹20.0 per ₹100 of output.

Output grew faster than its costs — Gross output rose 2.56× (11.0% a year) but the recorded feed bill only 1.68× (5.9% a year). Of each extra ₹100 of output since 2014-15, ₹86 became GVA. GVA rose 2.95× to ₹15.06 lakh crore.

The gain is worth about ₹2 lakh crore a year — At the 2014-15 feed share (30.5%), the 2023-24 feed bill would be ₹5.80 lakh crore, not ₹3.80 lakh crore. But ₹1.25 lakh crore of that ₹2.00 lakh crore difference arrived in 2017-18 alone; only ₹0.75 lakh crore built up over the next six years.

Meat is taking a bigger slice — Of every ₹100 of output, milk is ₹64.3 (₹66.8 in 2014-15) and meat ₹24.8 (₹20.8). Meat output grew 3.06×, milk 2.46×.

Data Table

Year	Output ₹ cr	Feed ₹ cr	All inputs ₹ cr	GVA ₹ cr	GVA %	Feed %
2014-15	7,42,807	2,26,894	2,31,814	5,10,411	68.7	30.5
2015-16	8,33,498	2,44,974	2,50,471	5,82,410	69.9	29.4
2016-17	9,50,677	2,71,575	2,77,706	6,72,611	70.8	28.6
2017-18	10,43,079	2,50,127	2,56,845	7,85,683	75.3	24.0
2018-19	11,49,783	2,59,463	2,66,903	8,82,009	76.7	22.6
2019-20	12,76,172	2,89,465	2,97,695	9,77,918	76.6	22.7
2020-21	14,13,303	2,90,632	2,99,633	11,13,089	78.8	20.6
2021-22	15,74,149	3,24,593	3,34,688	12,38,401	78.7	20.6
2022-23	17,34,418	3,57,457	3,68,681	13,64,763	78.7	20.6
2023-24	18,99,270	3,80,383	3,92,711	15,05,615	79.3	20.0
Change	**2.56×**	**1.68×**	**1.69×**	**2.95×**	**+10.6 pp**	**−10.5 pp**

What the ₹100 of output is made of

Output item	2014-15 ₹ cr	2023-24 ₹ cr	Times	% / yr	Share ₹100
Milk	4,95,835	12,20,986	2.46×	10.5	64.3
Meat (all types)	1,54,152	4,71,661	3.06×	13.2	24.8
Eggs	24,382	65,808	2.70×	11.7	3.5
Dung	45,455	92,958	2.05×	8.3	4.9
Silk cocoons & honey	6,930	18,675	2.69×	11.6	1.0
Increment in stock	15,474	28,609	1.85×	7.1	1.5
Wool & hair	578	574	0.99×	-0.1	0.0
Total output	**7,42,807**	**18,99,270**	**2.56×**	**11.0**	**100**

Source: BAHS 2025, DAHD, MoSPI national accounts, ₹ crore); GVA = output − inputs − FISIM (bank service charges). Shares, growth rates are GFST calculations.

WITH GRATITUDE

Thank You for Walking Through This With Us

You've just spent time with the numbers behind eight crore families' lives — their milk, their markets, their mornings, their quiet resilience. That is not a small thing, and we do not take it lightly.

This is not a book that closes. Two new Data Stories arrive every week — not on a fixed schedule of topics, but whichever story matters most right now. Some weeks that means dairy, others policy, others a single state's own story. We follow the data, not a calendar. Thank you for reading this with us. We hope you'll stay for what comes next.

Tell Us What You Think

This Atlas is built to be questioned

Was this clear and useful?

What would you want to see next on this topic?

Any correction to flag? Two minutes, straight to our inbox.

Reply With Your Thoughts @ admin@gfst.in

DISCLAIMER

All figures in Pashudhan Atlas are sourced from national and state government publications (including BAHS, Livestock Census, MoSPI, DAHD), Parliamentary and State Assembly records, peer-reviewed research, reputable international and national bodies (including FAO, World Bank, ICAR), and GFST's own field surveys — each cited individually, verified at the time of publication. Data may be revised by originating authorities thereafter. Projections and potential-yield scenarios are GFST's own analytical modelling, not guaranteed outcomes. Survey-based findings reflect the surveyed sample, not a full census, unless stated otherwise. This publication is informational only and does not constitute financial, legal, or investment advice; readers should conduct independent due diligence. Analyses are GFST's own and do not represent any government or partner institution's position.

Spotted an error or have a correction? Write to us at the above email.

Follow us

www.gfst.in/

www.instagram.com/gfstofficial/

www.linkedin.com/gfst-think-tank

x.com/gfst_official/

www.linkedin.com/in/gfst-livestock-accelerator/

www.youtube.comx.com/gfst_official/