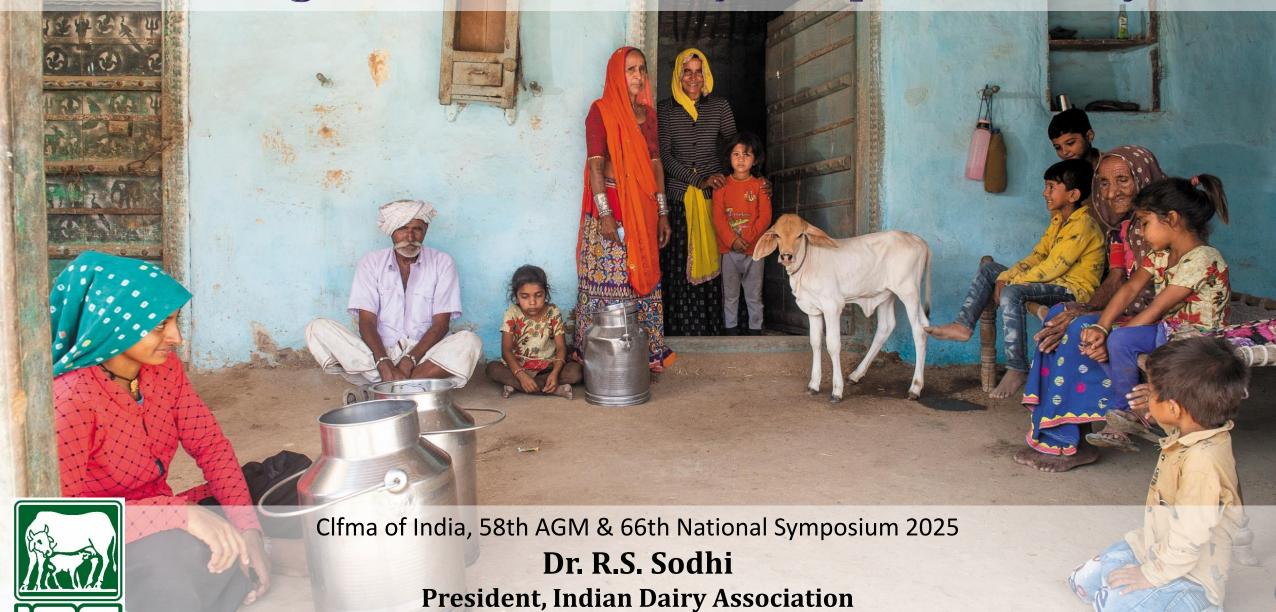
Growing Towards a Globally Competitive Dairy

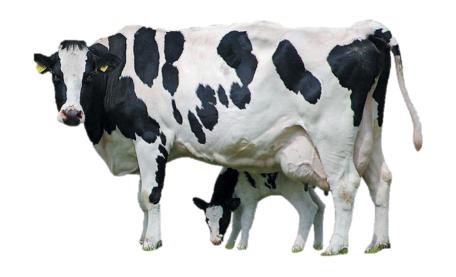


August 23, 2025

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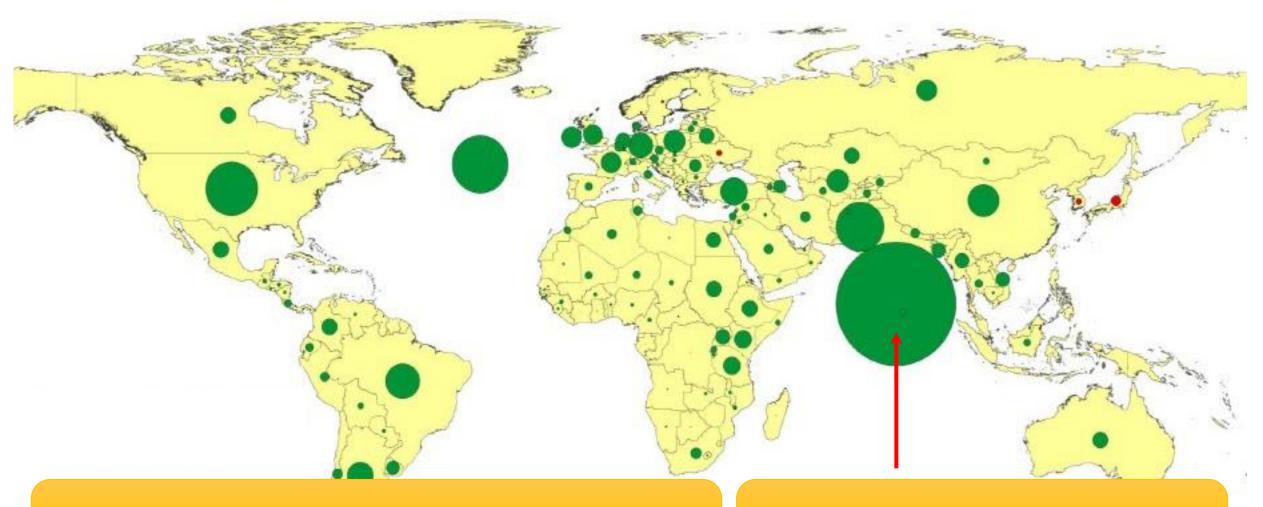
- World Dairy Scenario
- India: Building World Dairy Leadership
- Reasons for Success
- Opportunities & Challenges for Dairy Sector
- Opportunities and Action Areas for Cattle Feed Industry

World Dairy Scenario & India





World Milk Production (Year 2024)



World milk production: 944 MMT

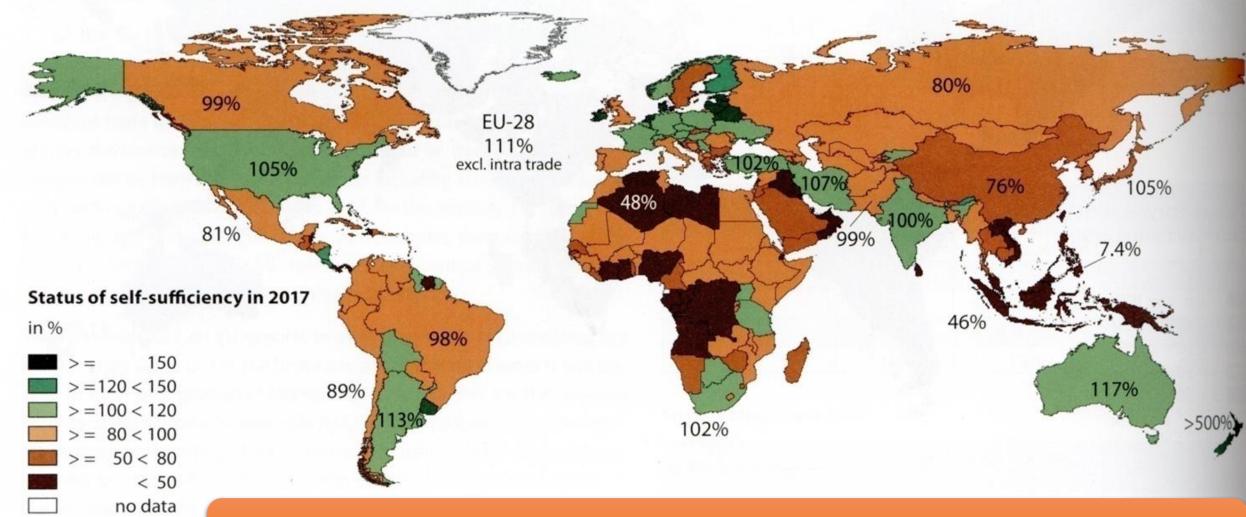
World milk production growth: 1.8% of last 20 years

INDIA No. 1 Milk Producer: 239 MMT (24% of world)

MMT: Million Metric Tonne

Source: FAO

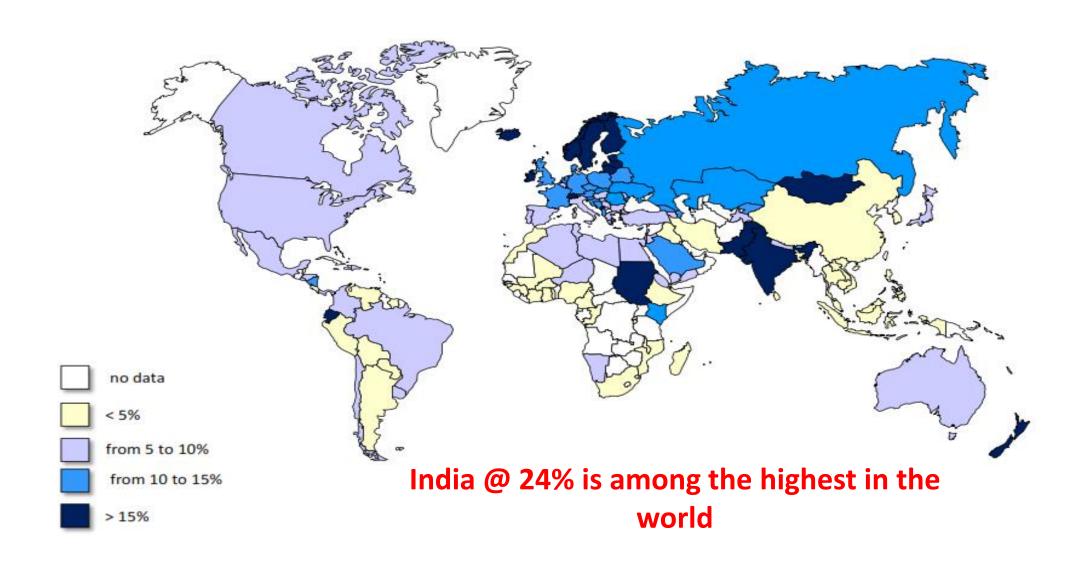
Status of Self Sufficiency for Milk



India is 100% self sufficient in Milk consumption.

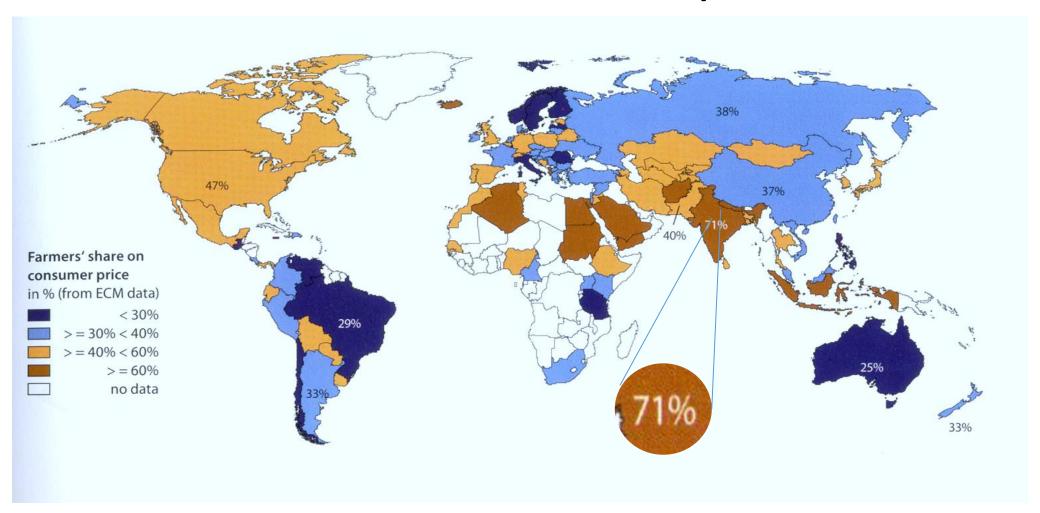
Huge potential for export in neighboring milk deficit nations

% Share of Dairy Sector in Total Agricultural Production



Competitiveness of Indian dairy products

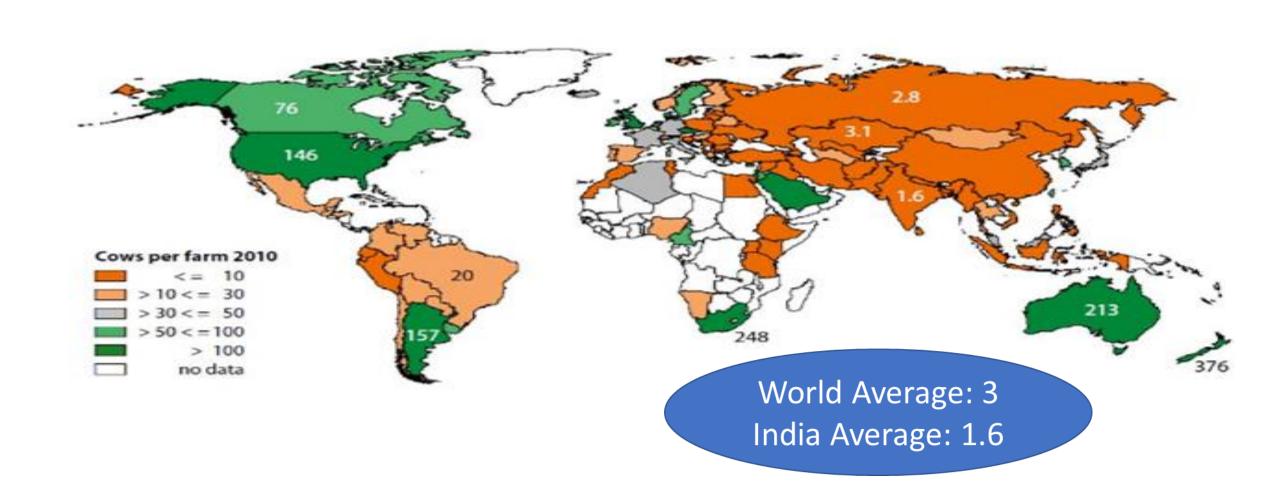
Farmer's share in consumer price



Indian Farmer has the highest share of consumer price

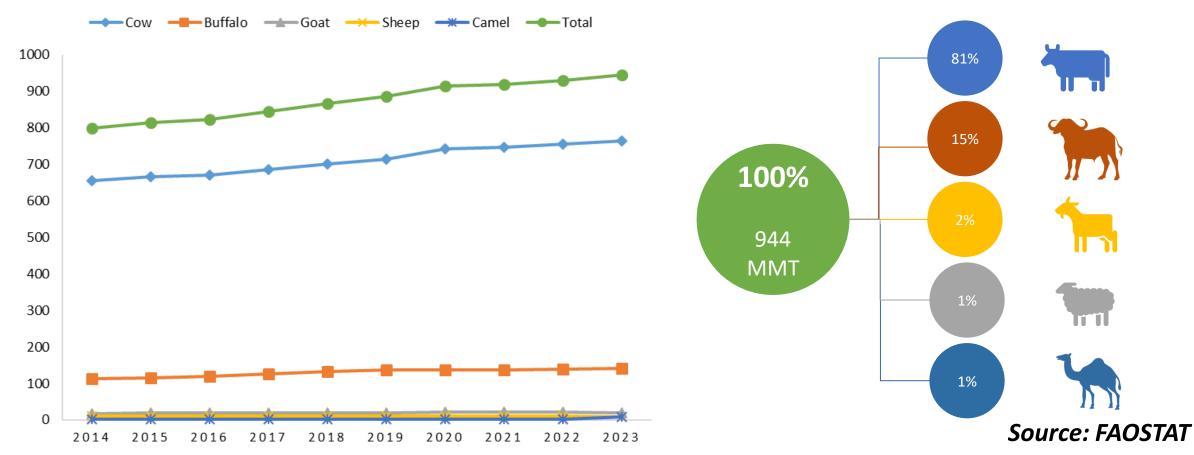
Source: IFCN

World Average Farm Size



World Estimates of Milk Production

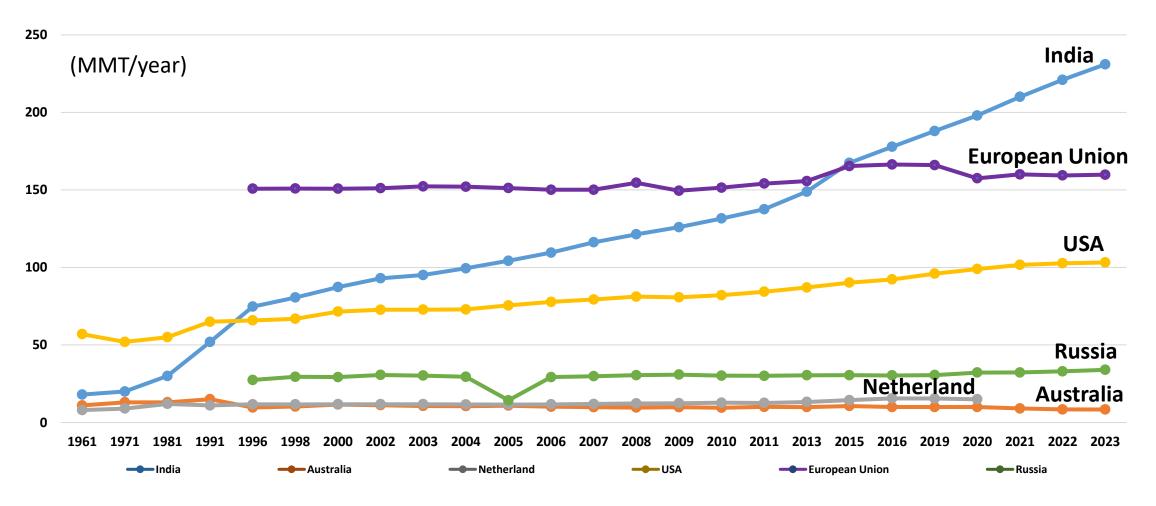
| Category/ MMT | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---------------|------|------|------|------|------|------|------|------|------|------|
| Cow | 655 | 666 | 671 | 685 | 701 | 715 | 742 | 746 | 756 | 765 |
| Buffalo | 114 | 116 | 120 | 126 | 132 | 137 | 138 | 138 | 140 | 142 |
| Goat | 18 | 19 | 19 | 20 | 20 | 20 | 21 | 21 | 21 | 19 |
| Sheep | 10 | 10 | 10 | 10 | 10 | 11 | 10 | 10 | 10 | 9 |
| Camel | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 9 |
| Total | 800 | 814 | 823 | 844 | 866 | 886 | 914 | 918 | 930 | 944 |



India: Building World Dairy Leadership

Comparative Milk Production Growth

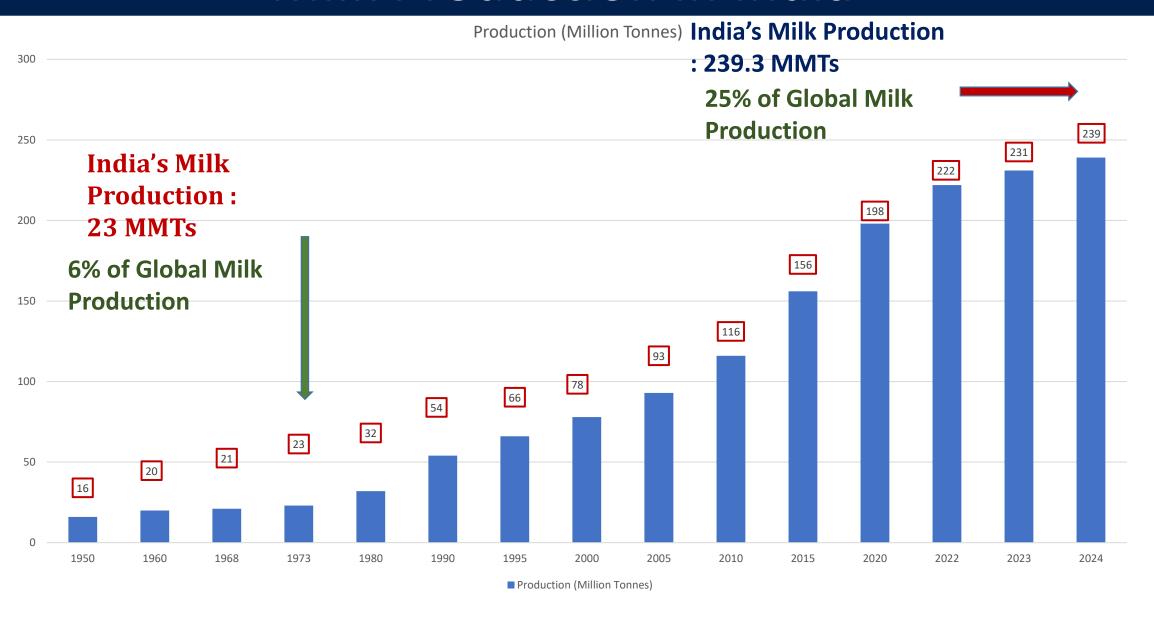
CAGR of last 15 years: India: 4.9% | USA: 2.3% | EU: 1.3% | AUS: 0.5% | Netherland: 2.7% | World: 1.7%



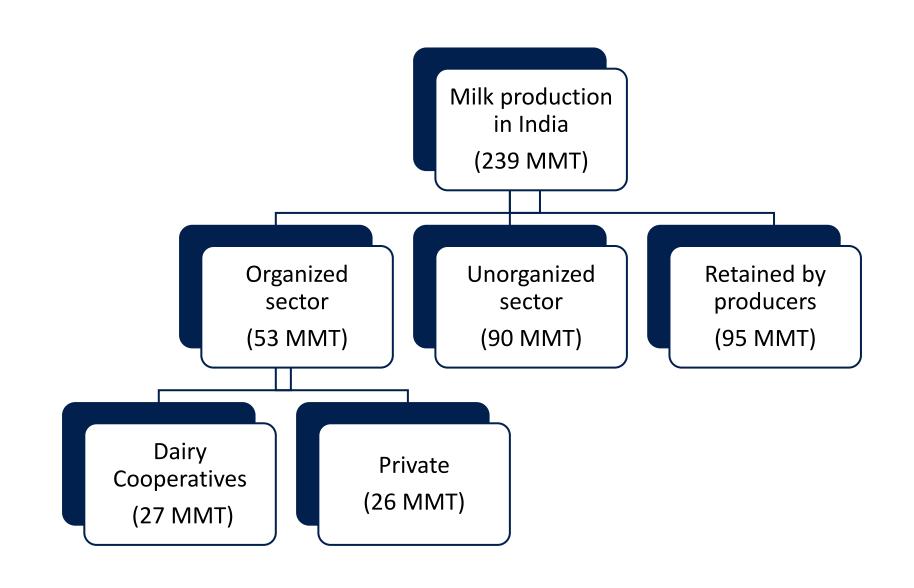
Milk production of India, Australia and Netherlands was almost similar in 1971

Source: FAO

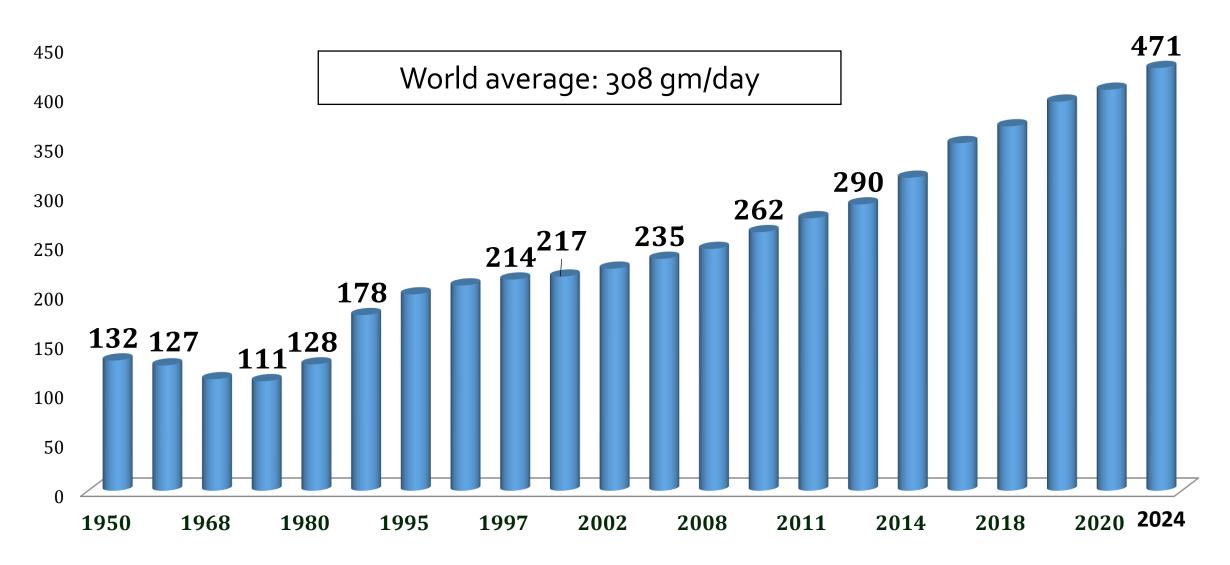
Milk Production in India



Milk Production in India



Per Capita Availability India (gms. per day) has grown at 3% CAGR

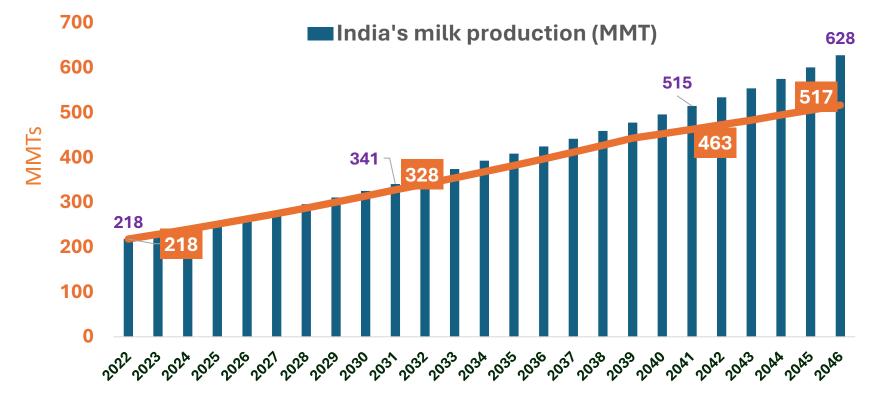


Growth of Indian Dairy Industry

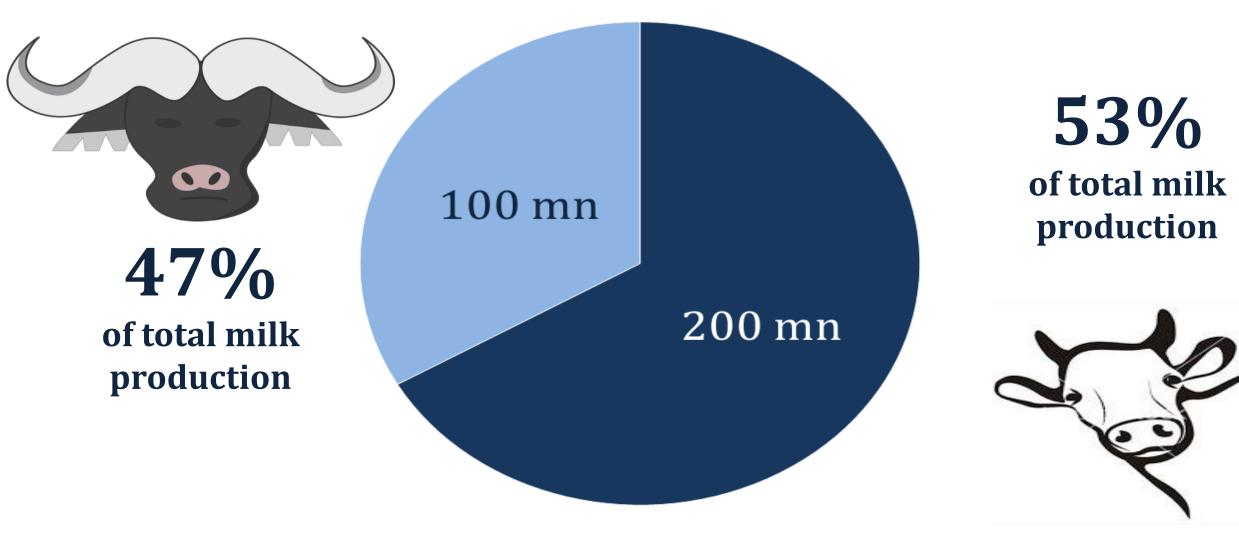
| Year | 1972 | 1997 | 2023 | 2030 | 2048 |
|--|------|------|------|------|------|
| Milk Production in MMT | 24 | 71 | 231 | 330 | 628 |
| % of World Milk Production | 6 | 14 | 24 | 30 | 45 |
| Per Capita Consumption Gram Per Person Per Day | 110 | 214 | 466 | 550 | 852 |

By 2047, India will have export surplus of around 111 MMTs

In next 25 years, Milk
Production of India will reach
628 MMTs, while demand for
Milk and Dairy products will
increase to 517 MTs



Largest Bovine Population in the world: 300 Million



Average yield per animal Ltr/perday 2023

| Breed | Yield in Ltr/day | Increase per annum | | |
|-------------------------|------------------|--------------------|--|--|
| Crossbred /Exotic | 8.55 | 3,75 | | |
| Indigenous/Non-descript | 3.44 | 2.69 | | |
| Buffalo | 6.06 | 3.69 | | |

80 million Rural Households in India depend on dairying for livelihood.

More than 70% of them are small & marginal farmers and landless families



Analysis of Growth in Various Agricultural Sectors and their Contribution to Sectoral Development from 1970-71 to 2020-21

| Item | Compound Growth Rate % | Increase: times | Share in total increase in agri & allied output |
|---------------------------------|---------------------------|--------------------|---|
| 1. All crops | 2.46 | 3.38 | 52.59 |
| Cereals | 2.10 | 2.83 | 13.23 |
| Paddy | 2.08 | 2.80 | 6.66 |
| Wheat | 3.03 | 4.46 | 5.54 |
| Maize | 2.81 | 4.00 | 1.32 |
| Pulses | 1.68 | 2.30 | 2.36 |
| Oilseeds | 2.42 | 3.30 | 4.58 |
| Condiment & spices | 4.20 | 7.83 | 3.61 |
| Fruits total | 3.53 | 5.66 | 10.64 |
| Vegetable total | 3.43 | 5.41 | 6.08 |
| 2. Livestock | 4.37 | 8.50 | 37.11 |
| Milk | 4.71 | 9.98 | 25.26 |
| Poultry | 6.42 | 22.45 | 6.30 |
| 3. Fishery | 5.02 | 11.57 | 7.81 |
| 4. Forestry | 0.55 | 1.31 | 2.49 |
| 5. Total Agriculture and allied | 2.70 | 3.80 | 100.0 |
| 6. Human Population | 1.84 | 2.50 | |
| 7. Female bovine population | 1.50 | 2.0 | |

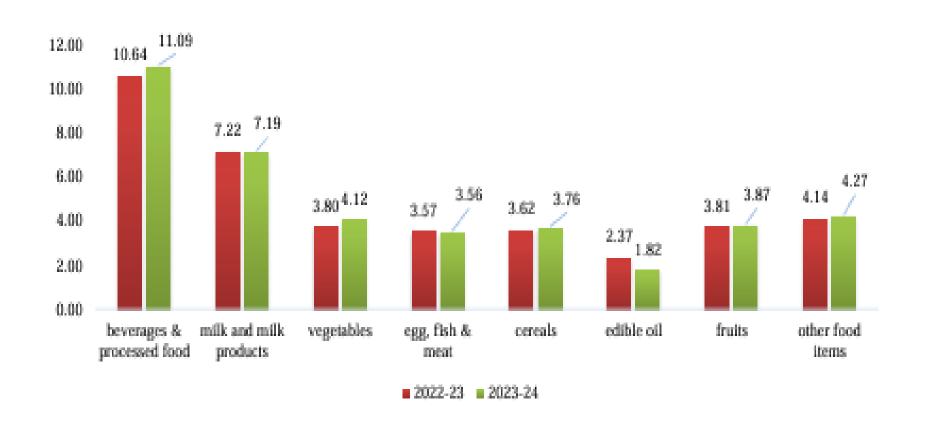
Changes in Composition of Agriculture

| Agri Commodity Group | Share in ' | Share in Value of Crop and Livestock Output (%) | | | | |
|--------------------------|------------|---|------|--|--|--|
| | 1970-71 | 2020-21 | | | | |
| Cereals | 37.1 | 25.3 | 16.7 | | | |
| Pulses | 4.7 | 4.2 | 3.9 | | | |
| Oilseeds | 8.2 | 8.2 | 5.2 | | | |
| Fruits & Vegetables | 12.4 | 14.6 | 19.4 | | | |
| Other crops, by products | 22.6 | 22.0 | 17.9 | | | |
| Milk Group | 10.2 | 17.4 | 24.3 | | | |
| Meat | 1.6 | 3.8 | 8.1 | | | |
| Egg | 0.5 | 0.9 | 1.2 | | | |
| Other livestock products | 2.8 | 3.5 | 3.3 | | | |

Average MPCE at current prices

| Survey | Period | at current Prices | | | |
|----------------------|--------------------|-------------------|-------|--|--|
| | | Rural | Urban | | |
| HCES: 2023-24 | Aug 2023- Jul 2024 | 4,122 | 6,996 | | |
| HCES: 2022-23 | Aug 2022- Jul 2023 | 3,773 | 6,459 | | |
| 68th round (2011-12) | Jul 2011-Jun 2012 | 1,430 | 2,630 | | |

Share of Food items in Avg. MPCE - Urban



Composition of Food Consumption Expenditure (%)

| RURAL | | | | URBAN | | | | | |
|-----------------|---------|---------|---------|---------|-----------------|---------|---------|---------|---------|
| | 1999-00 | 2004-05 | 2011-12 | 2022-23 | | 1999-00 | 2004-05 | 2011-12 | 2022-23 |
| Cereals | 37.42 | 32.86 | 20.32 | 10.59 | Cereals | 25.78 | 23.77 | 15.63 | 9.29 |
| Pulses | 6.63 | 5.84 | 5.48 | 4.33 | Pulses | 6.14 | 5.28 | 4.79 | 3.55 |
| Milk | 14.73 | 15.38 | 15.2 | 17.96 | Milk | 18.06 | 18.61 | 16.45 | 18.43 |
| Vegetables | 10.39 | 11.07 | 12.51 | 11.6 | Vegetables | 10.67 | 10.47 | 10.86 | 9.7 |
| Fruits | 2.9 | 3.39 | 5.35 | 8 | Fruits | 5.04 | 5.28 | 8.02 | 9.73 |
| Egg, fish, meat | 5.59 | 6.04 | 9.05 | 10.59 | Egg, fish, meat | 6.51 | 6.37 | 8.56 | 9.11 |
| Edible oil | 6.3 | 8.36 | 7.07 | 7.74 | Edible oil | 6.53 | 8.12 | 6.24 | 6.05 |
| Spices | 4.61 | 4.16 | 6.62 | 6.43 | Spices | 4.31 | 3.63 | 5.68 | 5.44 |
| Sugar & salt | 4.38 | 4.67 | 3.46 | 2.01 | Sugar & salt | 3.75 | 3.88 | 2.7 | 1.53 |
| Beverages, etc* | 7.05 | 8.25 | 14.93 | 20.74 | Beverages, etc* | 13.21 | 14.59 | 21.07 | 27.16 |

Consumption Trends Dairy V/s Bread, Pulses & Sugar

MILK > PULSES+BREAD+SUGAR

| Item Groups | MPC | E (Rs) | % Share in Total | | |
|-------------------------|-------|--------|------------------|-------|--|
| item Groups | Rural | Urban | Rural | Urban | |
| Cereals & Substitute | 185 | 235 | 4.91 | 3.64 | |
| Pulses & Their Products | 76 | 90 | 2.01 | 1.39 | |
| Sugar & Salt | 35 | 39 | 0.93 | 0.6 | |
| Roti+Dal+Chini | 296 | 364 | 7.85 | 5.63 | |
| Milk & Milk Products | 314 | 466 | 8.33 | 7.22 | |

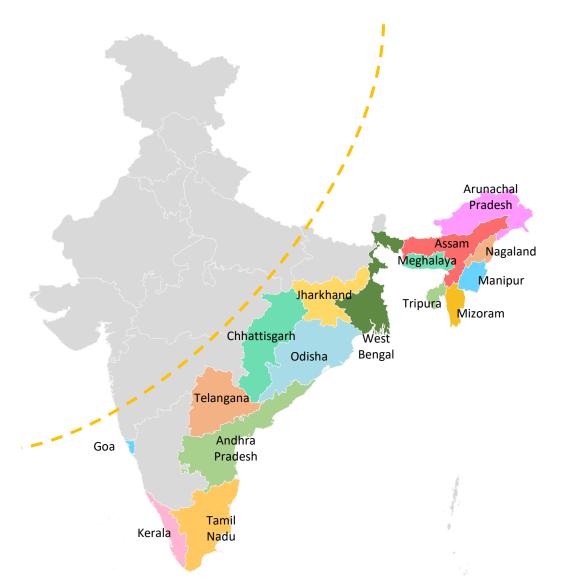
Monthly Per Capita Consumption-Veg States

| Vegetarian States | | | | | | | |
|-------------------|-------|--------|-------|--------|--|--|--|
| States | Ru | ıral | Urban | | | | |
| States | Milk* | Meat** | Milk* | Meat** | | | |
| Haryana | 933 | 47 | 1040 | 85 | | | |
| Delhi | 813 | 103 | 836 | 134 | | | |
| Punjab | 782 | 67 | 836 | 75 | | | |
| Rajasthan | 660 | 49 | 776 | 54 | | | |
| Sikkim | 659 | 555 | 901 | 608 | | | |
| Himachal Pradesh | 629 | 135 | 686 | 121 | | | |
| Gujarat | 476 | 47 | 669 | 77 | | | |
| Jammu & Kashmir | 482 | 219 | 651 | 214 | | | |
| Uttarakhand | 427 | 131 | 570 | 143 | | | |
| Uttar Pradesh | 337 | 99 | 516 | 113 | | | |
| Bihar | 309 | 202 | 420 | 228 | | | |
| Madhya Pradesh | 302 | 71 | 446 | 83 | | | |
| Karnataka | 234 | 222 | 332 | 292 | | | |
| Maharashtra | 226 | 147 | 393 | 198 | | | |



^{*}Includes milk products; **Includes eggs & fish

Monthly Per Capita Consumption- Non Veg States



| Non-Vegetarian States | | | | | | | |
|-----------------------|-------|--------|-------|--------|--|--|--|
| States | Ru | ral | Urban | | | | |
| States | Milk* | Meat** | Milk* | Meat** | | | |
| Goa | 419 | 679 | 449 | 655 | | | |
| Tripura | 232 | 656 | 359 | 731 | | | |
| Nagaland | 162 | 652 | 258 | 868 | | | |
| Mizoram | 147 | 611 | 204 | 720 | | | |
| Kerala | 224 | 545 | 245 | 503 | | | |
| Manipur | 140 | 520 | 167 | 430 | | | |
| Arunachal Pradesh | 199 | 519 | 339 | 706 | | | |
| Meghalaya | 118 | 443 | 207 | 632 | | | |
| Assam | 149 | 372 | 300 | 487 | | | |
| Tamil Nadu | 249 | 325 | 345 | 358 | | | |
| West Bengal | 122 | 312 | 225 | 442 | | | |
| Telangana | 266 | 321 | 394 | 344 | | | |
| Andhra Pradesh | 305 | 317 | 390 | 310 | | | |
| Odisha | 96 | 186 | 224 | 234 | | | |
| Jharkhand | 147 | 185 | 330 | 198 | | | |
| Chhattisgarh | 84 | 102 | 234 | 107 | | | |

*Includes milk products; **Includes eggs & fish

Source: MOSPI, Gol

Reasons for Success

Vision -1970 Self-sufficiency or Atma Nirbharta Farmer's Owned Supply Chain Selfless Dedicated Leadership Livelihood Partial or Major for 80 million families Very Detailed Planning, Meticulous Execution and Monitoring OF Engaging best of the professionals ☐ Long-term Investment in Infrastructure rather than Subsidies **Emphasis on Marketing and Branding** Technology integration and innovation and digitalization

Opportunity for Global Competitiveness

- Demand rising in Asia & Africa (milk-deficit regions)
- India's potential export surplus ~100 MMT by 2047 (USD 40–50 Bn)
- Paneer & value-added products market growing @ 15% CAGR (₹30,000+ Cr by 2030)

Strengths of Indian Dairy

- Lowest cost of production globally
- Highest farmer share in consumer price (70–85%)
- Strong cooperative & private dairy ecosystem
- Rich diversity: cow, buffalo, indigenous breeds

Challenges to Dairy Industry

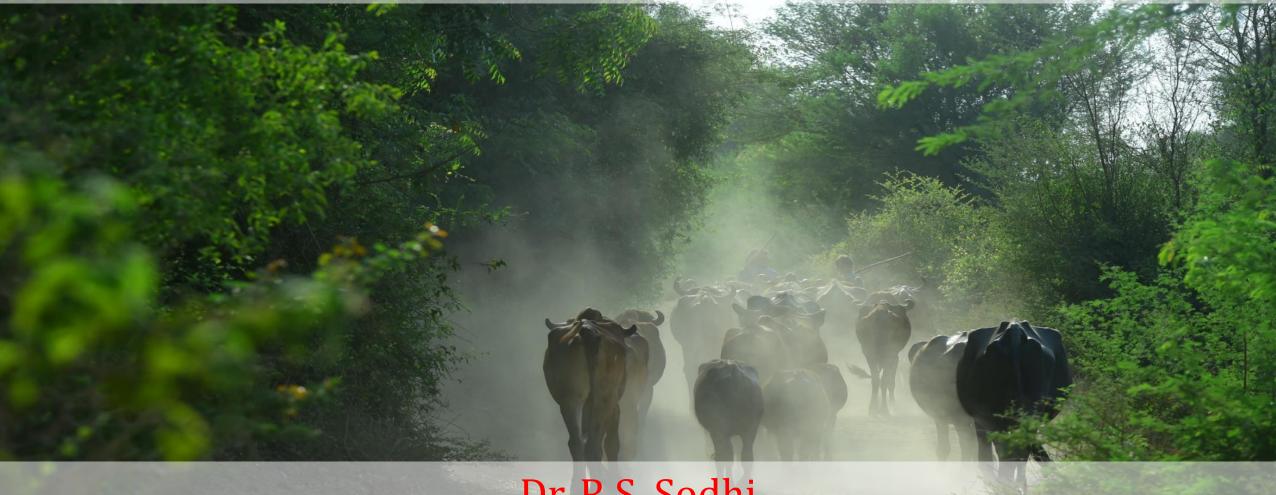
- Growth in Milk Production
- Animal productivity and Breeding
- Animal health and prevention
- Animal feeding
- Policy level
- Adulteration
- Analogue products

- Free Trade Agreement (FTA)
- Price Volatility
- Next Gen: Not ready to work in dairying
- Shortage of professionals
- A1 versus A2
- Cow versus Buffalo Milk
- Leadership

Opportunities and Action Areas for Cattle Feed Industry

- Growth in Market
- Category Building
- Awareness of Feed conversion Ration
- Volatility in raw material prices
- Regulatory compliances

THANK YOU



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