## **COVER**

## POSITIONING POULTRY FOR A PIVOTAL ROLE IN VIKSIT BHARAT 2047

Now dreaming of a "Developed India" (VIKSIT BHARAT) by the centenary celebrations of its independence in 2047. **Dr. Tarun Shridhar**, Director General, Indian Chamber of Food and Agriculture and Former Secretary, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India, explores for **IPR** how the Indian poultry industry stands as a vital pillar in realising this vision by driving nutrition security, rural employment and agribusiness innovation in shaping a self-reliant, progressive and a globally competitive India

"If you think in terms of a year, plant a seed; if in terms of ten years, plant trees; if in terms of 100 years, teach the people", advises the wisdom of Confucius.

Our people, on completion of 100 years of our nation's independence, are slowly but surely progressing to the vision of a Viksit Bharat (Developed India) by 2047. This represents India's transformative ambition to achieve developed nation status by the 100<sup>th</sup> anniversary of its independence. It is a national aspiration to foster a self-reliant and prosperous economy, characterised by comprehensive advancements across multiple societal and economic dimensions. The foundational framework for this vision, following the wisdom of Confucius, rests upon four strategic sets of people: Yuva (Youth), Garib (Poor), Mahila (Women), and Kisan (Farmers), emphasising inclusive growth as a core principle.

The overarching goals of Viksit Bharat 2047 extend beyond mere economic expansion to encompass social equity, global competitiveness, environmental sustainability, technology, and transparent governance. Specific objectives articulated within this vision include the eradication of poverty, ensuring universal access to high-quality education and healthcare, achieving 100% skilled labour with meaningful employment opportunities, and significantly increasing women's participation in economic activities. A crucial objective for Indian farmers is to transform the country into the food basket of the world. Economically, India aims for its Gross Domestic Product (GDP) to surpass US\$ 7 trillion by 2030 and reach an impressive US\$ 34.7 trillion by 2047, with per capita income projected to reach US\$ 21,000 within the same timeframe. The anticipated shifts in sectoral contributions to GDP by 2047 indicate a structural transformation, with agriculture's share projected to decrease to 12%, while the industrial sector is expected to reach 34%, manufacturing 25%, and services remaining stable at approximately 54%.



The projected reduction in agriculture's contribution to GDP to 12% might initially appear counterintuitive for a nation that places farmer welfare at the core of its development strategy. However, this trend is characteristic of developed economies, where economic activity naturally shifts from primary sectors like agriculture towards higher value industrial and service sectors. For the 'Kisan' pillar to thrive amidst this structural change, the focus must move beyond simply the quantitative share of agricultural output to a qualitative enhancement of the sector. This implies a significant increase in productivity per farmer, a robust emphasis on value addition within the agricultural sector, and a strategic diversification of rural incomes beyond traditional crop cultivation. Industries allied to agriculture, such as poultry farming, are, therefore, vital. They offer higher-value products like meat and eggs, require less arable land compared to traditional crops, and foster entrepreneurship in rural communities. Agriculture and its allied sectors are recognised as critical enablers for achieving the vision of Viksit Bharat. Let us understand how and where the poultry sector gets positioned in our national vision and ambition?



The poultry industry is recognised as a dynamic pillar of the global agricultural economy, providing an indispensable and often preferred source of protein for billions worldwide. Its remarkable growth trajectory and inherent adaptability underscore its central role in addressing global food security imperatives. Among animal proteins, poultry distinguishes itself through its superior production efficiency, rapid growth cycle, and competitive pricing, rendering it an accessible and cost-effective dietary staple across a wide spectrum of income levels. A notable characteristic of the poultry sector is its demonstrated ability to maintain positive growth and recover swiftly, even amidst significant global disruptions such as the COVID-19 pandemic and widespread Highly Pathogenic Avian Influenza (HPAI) outbreaks. For instance, broiler production sustained positive annual growth through both the pandemic and the avian influenza outbreak, a resilience not uniformly observed in other allied sectors. This consistent pattern of adaptability and recovery positions poultry as a relatively more reliable protein source in an increasingly volatile global environment. This inherent strength suggests that even when the industry encounters future challenges, its structural attribute of quick turnaround time and capacity to absorb shocks shall ensure its continued upward trajectory, making it a secure option for long-term investment and policy focus compared to other agricultural sectors.

There is a sustained increase in global demand for animal protein, with poultry consistently favoured for its versatility,

perceived health benefits, and its comparatively lower carbon footprint when juxtaposed with red meat. Growing health consciousness and changing dietary preferences are actively boosting poultry consumption, leading to a broader societal shift towards protein-rich diets. The global poultry sector is on a clear path of expansion, with significant increases projected in both production and consumption. Global poultry meat consumption is projected to reach 160 million metric tons (MT) retail weight equivalent by 2033, a volume expected to account for half of the total additional meat consumed during that period. This highlights poultry's increasing share of the overall meat market. Annual global poultry production is forecast to increase by 15% over the projection period, reaching 162 million tonnes by 2034. This impressive growth is largely attributed to increasing demand and the comparatively lower initial costs associated with poultry production relative to other meats.

Focusing specifically on chicken meat, the global market volume is projected to reach 133 million tonnes by the end of 2035, with its market value anticipated to reach \$286.3 billion,

reflecting a Compound Annual Growth Rate (CAGR) of +0.8% in volume and +2.0% in value from 2024 to 2035. The broader "Poultry Meat Market," which includes chicken, turkey, and duck, is expected to grow from an estimated \$327.57 billion in 2024 to \$458.60 billion by 2034, demonstrating a CAGR of 3.4% during this period. Overall, poultry meat consumption is estimated to grow by 15% in the next decade (to 2032), according to projections from FAO and OECD. The most significant growth is expected in Asia, Africa, and Latin America, fuelled by burgeoning populations, rapid urbanisation, and rising disposable incomes. These regions are set to play a pivotal role in shaping the global agricultural landscape, with India projected to surpass China as a leading player in agricultural markets.

The Indian poultry sector stands as one of the most dynamic and rapidly expanding segments within the nation's agricultural landscape. Its growth trajectory reflects a significant transformation from traditional backyard farming to a sophisticated commercial enterprise. This evolution has propelled India into a prominent position on the global stage.

India currently ranks as the 2<sup>nd</sup> largest egg producer globally, with an impressive 142.77 billion eggs produced during 2023-24. About 85% of these eggs are the output of commercial poultry, signifying a progressive evolution of a traditional backyard activity to an industrial one. In poultry meat production, India holds the 5<sup>th</sup> position worldwide, with an output of over 5 million tonnes in 2023-24, contributing nearly half of the country's total meat production. Over the past decade, the sector has demonstrated robust expansion, growing at a healthy rate of 8-10% annually.

The consistent and rapid expansion of the Indian poultry industry, as evidenced by the significant increase in egg production and its improving global ranking, underscores a highly dynamic and responsive sector. This continuous scaling up is not merely about achieving larger production volumes; it signifies the industry's capacity for adaptation and modernisation. Such robust growth positions India not just as a major producer but as a potential global leader in poultry, directly supporting Viksit Bharat's overarching goal of enhancing global competitiveness and establishing India as a key global economic player by 2047.

The poultry sector's economic footprint extends significantly

across the Indian economy. It is a major employment generator, providing directly and indirectly over 4 million job opportunities, predominantly in rural areas. This substantial labour absorption capacity is particularly vital for the 'Garib' and 'Kisan' pillars of Viksit Bharat, as it translates into direct income generation and improved livelihoods for a large segment of the population, fostering rural prosperity and reducing inequality.

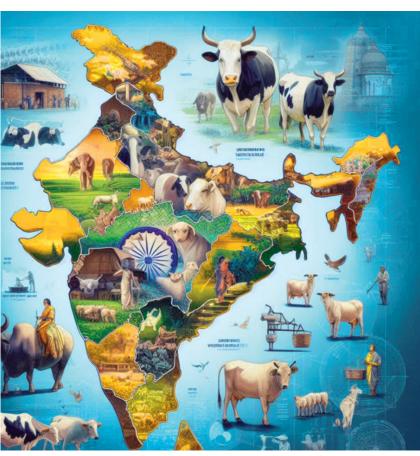
In terms of economic output, the poultry industry contributed approximately 1% to the national GDP and 14% to the livestock GDP. While the 1% contribution to the national GDP might appear modest in the context of India's ambitious target of a US\$ 34.7 trillion economy by 2047, the sector's substantial employment generation and its significant share within the broader livestock economy highlight its profound impact on rural livelihoods. Given that 95% of livestock farmers are concentrated in rural India, the sector's ability to create millions of jobs and generate income directly contributes to the social equity objectives of Viksit Bharat, supporting the upliftment of marginalised communities and fostering inclusive growth. The economic benefits extend beyond direct farming to the entire value chain, including feed production, processing, transportation, and retail, creating a multiplier effect that stimulates broader rural development.

Protein malnutrition is a pervasive and silent crisis across India, affecting millions. Over 80% of the population fails to meet their daily protein

requirements, with a staggering 73% identified as protein deficient. The average Indian consumes only 0.6 grams of protein per kilogram of body weight daily, significantly below the Indian Council of Medical Research (ICMR) recommendation of 0.8 to 1 gram per kilogram. This deficiency has adverse consequences, including stunted growth and impaired cognitive development in children, and reduced muscle mass, weakened immunity, and decreased productivity in adults. Poultry products, particularly eggs and chicken, are a solution to this nutritional challenge. They are among the most affordable and readily available sources of high quality protein containing all essential amino acids not found in many plant-based foods, along with vital vitamins, minerals, and beneficial fats. Their versatility and ease of preparation make them suitable for diverse dietary preferences across various income groups.

The critical role of poultry in improving public health and human capital is evident. Increasing the per capita consumption of poultry products, which currently lags significantly behind recommended levels, can directly address widespread protein deficiency. Per capita egg availability has risen to 103 eggs per vear; though impressive it is still below the recommendation of the National Institution of Nutrition which advises a consumption of 180 eggs per person per year. The per capita annual consumption of poultry meat stands at about 3.4 kg which is considerably below the recommended 11 kg. This substantial gap highlights a strategic opportunity for intervention. Promoting poultry consumption through targeted awareness campaigns and integrating eggs and chicken into government nutrition programs. such as mid-day meals in schools, can significantly improve nutritional outcomes, especially for vulnerable populations like children. This investment in a healthier, more productive citizenry is foundational to achieving the broader economic and social development goals of Viksit Bharat.

While the Indian poultry sector is poised for significant



contributions to Viksit Bharat 2047, it faces several critical challenges that necessitate strategic interventions. One of the most significant challenges confronting the Indian poultry industry is the volatility and high cost of feed. Feed expenses constitute a substantial 65-70% of total production costs, making the sector's profitability highly sensitive to price fluctuations in key ingredients. A major contributing factor to this challenge is the rising demand for maize, a primary feed ingredient, which is increasingly being diverted towards ethanol production. This creates a systemic conflict between national priorities of energy production and nutritional security, leading to shortages and pressure on maize prices. Stagnant sovbean yields further exacerbate the feed challenges. This situation threatens the sector's consistent growth trajectory and its ability to contribute to Viksit Bharat's economic goals. Strong policy interventions regarding imports of genetically modified (GM) maize and soybean meal, and incentivising domestic production of alternative, cost-effective feed ingredients are the need of the hour.

The poultry sector is highly susceptible to disease outbreaks, such as Avian Influenza, which can decimate entire flocks overnight, leading to substantial economic losses for farmers and significant disruptions in supply chains. The challenge is compounded by inadequate disease surveillance systems. Effective disease surveillance and control are paramount for maintaining supply stability, preventing economic losses, and, crucially, for growth in trade. International trade in poultry products is sensitive to a country's disease status. Therefore, making effective biosecurity measures and keeping the poultry disease-free is essential for India to realise its export potential and hence achieve its global standing as a Viksit Bharat.

A significant structural inefficiency in the Indian poultry market is the dominance of wet markets, where over 90% of chicken is sold as live birds for on-site slaughter. While culturally ingrained, this traditional model presents numerous challenges,

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including hygiene concerns, operational inefficiencies, and high price volatility for farmers. This limits the industry's ability to transition towards a more hygienic, efficient, and standardised processed product market. Furthermore, limited demand for frozen products, coupled with poor and high-cost transport infrastructure and unreliable cold chain facilities, severely impedes efficient distribution and value realisation. These gaps hinder product diversification and wider market penetration for processed poultry. Addressing these inefficiencies through strategic investments in modern processing units, robust cold chain logistics, and promoting a shift towards packaged products will not only improve profitability and reduce waste but also enhance food safety and consumer trust, aligning with Viksit Bharat's goals of industrial modernisation and improved public health outcomes.

Vertical integration, encompassing the entire poultry value chain from breeding and feed milling to processing and marketing, has proven to be a key driver of growth in the Indian poultry sector. This model has significantly increased production efficiency, reduced marketing margins, and consequently lowered consumer prices. This approach allows for greater control over the entire supply chain, effectively mitigating risks such as feed price volatility

and disease outbreaks through coordinated management and quality control. For Viksit Bharat, this means not just increased production but more stable and predictable growth, which is crucial for attracting further investment and ensuring a consistent supply to meet the nation's growing demand. It also facilitates the widespread adoption of technology and quality control measures, leading to higher quality products and better consumer prices, thereby contributing to overall economic stability and public welfare.

The current low rate of value-added processing, with only 8-10% of poultry meat undergoing further processing, presents a substantial untapped opportunity for the sector to move up the economic ladder. The processed poultry

segment is already witnessing significant innovation and product diversification, with a growing array of products such as sausages, nuggets, and ready-to-cook meals catering to evolving consumer preferences for convenience and variety. Shifting from raw commodities to processed, packaged, and branded products generates higher revenue, creates more skilled employment opportunities, and caters to the increasing demands of urban consumers. Concurrently, India is emerging as an exporter of chicken meat, particularly to the Middle East and Southeast Asia. Leveraging India's competitive production costs and capitalising on the rising global demand for animal protein allows the sector to significantly boost its export earnings. Government support for export-oriented policies is crucial in realising this potential, contributing directly to India's global competitiveness and trade objectives under Viksit Bharat.

The Indian poultry sector stands as an indispensable force in achieving the multifaceted objectives of Viksit Bharat 2047. Its role extends across the core pillars of national development, demonstrating a profound and far-reaching impact. The sector

is a powerful engine for economic growth, generating millions of jobs and significantly boosting rural incomes, thereby directly addressing the welfare of 'Kisan' (Farmers) and alleviating the challenges faced by the 'Garib' (Poor). Furthermore, it serves as a vital source of affordable, high-quality protein, crucial for combating widespread malnutrition and improving public health outcomes, which is fundamental to enhancing the nation's human capital for a developed India.

The unique structure of the poultry industry, particularly with strong women's participation in backyard farming and through the support of Farmer Producer Organizations (FPOs), makes it a key driver of women's empowerment and broader social equity, aligning seamlessly with the 'Mahila' (Women) pillar. The industry's proactive embrace of advanced technologies, ranging from genetic engineering and precision farming to automation and blockchain, positions it at the forefront of agricultural modernisation and innovation, essential for India's global competitiveness. The comprehensive impact of poultry across economic growth, poverty alleviation, nutritional security, women's empowerment, technological advancement, and environmental sustainability illustrates how this single industry, when strategically nurtured, can generate multi-faceted benefits

Viksit Bharat 2047.

Strategic imperatives for the future include continued investment in value-added processing to cater to evolving consumer demands and generate higher economic returns. Aggressive pursuit of global export markets, leveraging India's competitive advantages, will enhance the nation's global standing. Deepening technological integration

across the entire value chain will drive further productivity gains, improve product quality, and build resilience. Furthermore, strengthening Farmer Producer Organisations (FPOs) and promoting rural entrepreneurship will ensure that the benefits of growth are equitably distributed, fostering broad-based rural prosperity. These

across society and the economy. This embodies the inclusive and progressive spirit of the holistic development model envisioned for Viksit Bharat 2047.

challenges and opportunities are not isolated but interconnected, requiring a synergistic approach to policy and investment. For instance, addressing feed costs directly impacts profitability, which in turn influences investment in technology and value addition. Similarly, robust disease management is crucial for both domestic supply stability and export potential. This highlights that sustained growth towards Viksit Bharat hinges on recognising these interdependencies and implementing integrated strategies that leverage opportunities to mitigate challenges across the entire poultry value chain. Continued collaboration between government, stakeholders, and research institutions will be paramount to navigate future complexities and capitalise on emerging opportunities, positioning India's poultry sector as a global leader and a cornerstone of Viksit Bharat by 2047.

"What separates developing countries from developed countries is as much a gap in knowledge as a gap in resources" states Joseph Stiglitz, the renowned economist. We are truly destined to bridge this gap shortly, and poultry's contribution would be pivotal.

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