

POULTRY PROTEINS+

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Future trends in the Indian Poultry sector

By Dr Anjan Goswami, General Secretary, KPFBA

India is the second largest egg producer and third largest meat producer in the world. Poultry sector is the highest contributor in the Agriculture GDP of India. There has been a consistent growth in the Indian poultry sector in last few decades and is likely to grow at a CAGR of 7-8% for the next 10 years.

Undoubtedly, there would be tremendous growth opportunity for all the stakeholders in the sector, going forward. There would not only be revenue growth, but also inclusive growth of resources and value addition, besides profitability and sustainability. Then there are macro economic factors which will come into play. Therefore, for the sector to grow organically and otherwise, it calls for preparedness and forward-looking.



Opportunities in the Indian Poultry Sector:

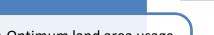
- Changes in food habits from cereals to protein
- World average processed chicken and eggs product contribution is 38% vs India's 7%, an opportunity for growth
- Per capita consumption is at 3.5 kg chicken meat and 63 eggs, much lower than world average, projected to grow
- Rural India market is yet to be explored, a growth driver.
- Online marketing of meat, eggs and meat products is picking up very fast, opening up scope for direct-to-market strategic approaches

The Challenges:

- Need for standardisation of regulation on poultry farming
- Ground water usage
- Land area utilization
- Limited availability of inputs and resources
- Cut-throat competition
- Bio-waste production and environmental issues
- Restrict usage of drugs and antibiotics

- Stringent quality parameters
- Cruelty to animals, increased role of NGOs and whistle blowers
- Lack of state-of-the-art processing and value-chain infrastructure
- Investment constraints
- Global players and competition
- Import of chicken meat and meat products
- Lack of marketing efforts

Farming:



- Optimum land area usage
- Ground water harvesting
- Resource optimization
- Feed to protein conversion - FPR
- Direct to market
- Market link and network

Processing and Value Addition

- Health and hygiene
- Product discovery
- Product development
- Quality control
- Pedigree record

Distribution, Marketing Branding

- Value chain management
- Quality control
- Last-mile delivery
- Direct to customer
- Omni channel approach

Future of the Indian Poultry:

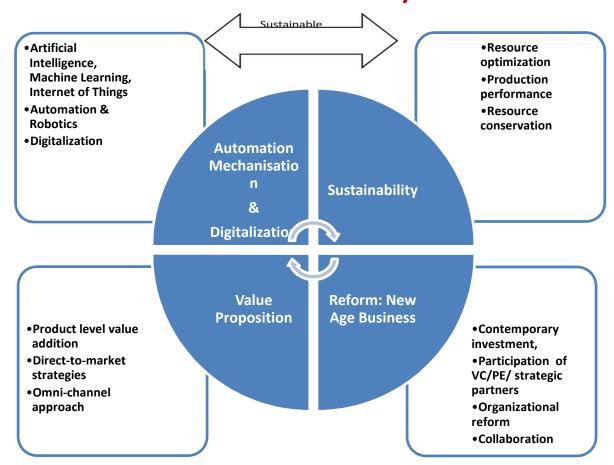
The future of the Indian poultry can broadly be articulated in two broad segments – future of the sector and future of an enterprise. Macroeconomic changes, food habit changes and market growth potential will be determining factors; while for an enterprise, the factors which will play key are business model; competitiveness; innovation; agility and adaptability; resilience and a roadmap.

The Trend: Automation-mechanization- Digitalization

Like any other sector, application of technology in each stage of value chain of the poultry from production to marketing cycle is going to be inevitable for enterprises in the near future. The growing concerns about the sustainable environment, growing role of social organisations, cut-throat competition, fight for market share and lack of availability of skilled work force will enforce the poultry producers to optimise sustainable production through automation.



The Future: Sustainable Poultry



The way forward:

- Sustainable farming practices
- Investment on Infrastructure and resources
- Product quality and cost competitiveness
- Value addition and branding
- **Technology adeptness**
- Preparedness to face global competition
- Contemporary ways of investments
- Collaborations
- Market information
- Price competitiveness

A balance between the ongoing business avenues, profitability and related expansion vis-a-vis the future possible trends in the sector and a methodical plan for change dynamics in the sustainable business model would play a significant role in determining the enterprises' sustainable growth along with the growing Indian poultry industry.

What is the realistic future of 3D printing in the poultry industry?

Poultry operations would benefit from the on-site printing of plastic or metal parts when the ones on the farm require replacing. The University of Western Australia's head of mechanical and chemical engineering, Tim Sercombe, has developed a printer that would use a metal powder that represents about 20 % of the total cost of the part. Smaller part sizes might take a day to complete, but when compared to ordering and waiting for delivery of a part, the potential to save downtime on a farm could be considerable. Aurora Labs is focusing its efforts on agriculture, citing the opportunity for rural or remote farmers in Australia to come to their own rescue!

One of the more inventive ways in which 3D printing can affect the poultry industry is through life-saving techniques. Reproducing feet, legs and even beaks has already been applied for pet birds. One example includes researchers from the University of Calgary, who created prosthetic feet for Foghorn the rooster after he lost both of his feet, most likely an unfortunate result of severe frostbite. Then there's Dudley the duck, who received an entire prosthetic leg (including the knee joint!) from the combined efforts of a 32-year-old mechanical engineer and architect who worked with Proto3000, a 3D printing company based out of Ontario. Imagine the opportunity for preserving high-value breeding stock such as parents, grandparents or great-grandparents, where continuing the genetic line is critical.

Robots doing the dirty work

There are a multitudinous number of repetitive tasks that robots could assist with. Poultry houses require nearly constant attention — cleaning and sanitizing, collecting eggs and checking birds. This is time-consuming, monotonous work, but it would not bother a robot. Additionally, robots are more precise, thorough and honest about the work they do compared to their human counterparts. An article by Benjamin Ruiz also points out how robots can help from a human welfare standpoint.

Check out Wageningen University's video demonstrating a robot that detects and picks up each egg with great care. France-based Octopus Robots designs entirely autonomous robots to prevent and control disease and infection in poultry houses. The bots also evaluate environmental factors such as temperature, humidity, carbon dioxide, ammonia, sound and brightness.



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Mr. Inayath Ulla Khan - Executive Secretary, KPFBA

For Advertisements Contact: **Email:** Poultryproteins@gmail.com Mobiile: 9886730997

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Person of the Month: Dr. G.B Puttannaiah

Dr. G.B Puttannaiah's contribution to the field of veterinary sciences has been immense. Not for nothing he is the Chairperson of the Technical Committee of the Karnataka Poultry Farmers and Breeders Association (KPFBA).

Dr. Puttannaiah was born on December 15, 1942. In 1965, he got his B.VSc degree from the University of Mysore and for a brief period he worked as a Veterinary Officer with the State Government. He did his M.VSc and PhD at the University of Agricultural Sciences, Hebbal while being employed as an instructor in 1966. On promotion he was drafted as a pathologist in the All India



Co-ordinated Research Project on Buffaloes at Dharwad Agriculture College. After he came back to Bangalore he completed Ph.D. In 1982, he was drafted to Karnataka Milk Federation (KMF) as Associate Professor in their Diagnostic Laboratory. Subsequently, he joined as a Scientist with Hindustan Ciba Geigy Research Center at Bombay.

He was head of toxicology, pathology and vivarium. He worked on drugs meant for Filariasis in humans. In 1988 he came back to Bangalore and joined the Diagnostic Laboratory at Deejay's Group, pioneers in poultry production in those days. During the years in Hindustan Ciba Geigy, he was advisor to several Ph.D students in comparative Oncology at the Cancer Research Institute at Bombay and he was member of the selection committee to select scientists in government Institutions.

In 1996 he joined Nutri Feeds and Farms Pvt Ltd as Director (Technical) and looked after their production units of poultry, hatchery and breeders at the same time serving the poultry farmers of the state. At KPFBA, he has organised many seminars and workshops. He is widely travelled, nationally and internationally. He was awarded 'Best Veterinarian' in 1993 by the Karnataka Veterinary Association; 'Best Citizen' in 1979 by the International Publishing House New Delhi; Asia's Who's Who – 1993 and Life Time Achievement Award in 2019 by IVPI, Karnataka.

Company of the month: Kwality Animal Feeds Pvt Ltd

Kwality Animal Feeds, a leading poultry company in North Karnataka, Under the able leaderships of Mr. Ajit V. Lokur, Managing Director, Mr. Sanjeev S. Deshpande Whole-time Director, Mr. A Ramkrishna Kalluraya, Director and core management team, Kwality Animal Feeds Pvt Limited, Belgavi started with a small mash feed mill in 1985. In over three decades it has become one of leading companies in the poultry sector in North Karnataka, with state-of-the-art feeds mills; Broiler breeding farms; Hatcheries; Contract broiler farms; state-of-the-art broiler slaughter house and retail outlets located in Belagavi. It has been successfully supplying poultry feed, live birds, fresh chilled chicken in Karnataka, Goa and Maharashtra.

Kwality Animals Feeds Pvt Ltd., was established in 1983 and began its operations in 1985 with an objective of providing best quality, nutritionally balanced and economical feed to poultry farmers with an assured performance. The company started a breeding farm and hatchery in year 1996 with an objective to supply best quality chicks to poultry farmers. Presently, the breeder farm has a capacity of 1,20,000 birds and hatchery capacity is 4,10,000 HE/ week.

The company started contract farming activity in 2000 where chicks are grown to chicken under one roof with strict quality control through dedicated veterinarians, technical and non-technical staff. Today, Kwality has over 800 contract poultry farms with monthly chick placement around 15 Lakh.

The company started state-of-the-art fully automatic pellet feed plant with capacity 10 mt per hour as a strategy to adopt new technology and to improve feed quality and performance. Total feed production capacity is 10,000mt per month. It started poultry dressing plant (slaughter house capacity 3000 birds /hr) in the year 2016 at Rajgoli, Taluka-Chandgad, Kolhapur in Maharashtra, with a view to further strengthen its presence in poultry industry by adopting the latest technology, considering importance of hygiene in public health. It has been selling chicken meat with brand name "Belchick" to reputed QSR (DOMINOZ, Mc Donald, KFC etc) and Indian Army in very short period of span.

Kwality is committed for consistent feed quality, performance, efficiency, innovation for the progress of its stakeholders and esteemed customers. It also committed for supply of hygienic and good quality protein food to society. Throughout the journey from farm to customers KAFPL ensure that their employees and customers are happy.

KAFPL also committed for conservation of water and environment, Planted more than 5000 trees, water harvesting systems at its all units and sophisticated effluent treatment plant. KAFPL is providing direct employment to more than 1000 personnel and indirectly around 5000 personnel.



Gram Panchayats have no right to demand taxes from poultry farms as it comes under agriculture

Several Gram Panchayats in Karnataka have been harassing poultry farmers, demanding payment of taxes as they are unaware that poultry farming is part of agricultural activity. Legal opinion sought by the Karnataka Poultry Farmers & Breeders Association (KPFBA) has clearly pointed out that the Gram Panchayats have no right to demand taxes of any sort from poultry farms as it comes under agricultural activity.

An expert lawyer, Mr. K.S.Uday, after having received representations from poultry farmers and the KPFBA on the issue, has stated that 'Poultry farming has been defined as Agriculture under the Karnataka Land Reforms Act, 1961. The Act provides for carrying on poultry farming activities on agricultural lands. All the agricultural lands will be assessed to Land Revenue under the Karnataka Land Revenue Act and concerned Revenue Inspector is authorized to collect land revenue, in respect of land which is used for cultivation only and other portion of the lands where buildings are put up or not used for cultivation, the said lands will also be excluded from Revenue Assessment, treating the same to be cultivable kharab land."

Demanding taxes is illegal

The expert lawyer further stated that "The Gram Panchayat authorities have no right to demand taxes or collect taxes. Since the lands being agricultural lands, the provisions of Karnataka Grama Panchayat and Grama Swarajya Act are not attracted. In view of the same, any such notices issued by the Panchayat authorities, demanding taxes from the poultry owners in respect of poultry farms is illegal and without authority of any law. All such illegal acts of the authorities can be assailed before the Hon'ble High Court, invoking writ jurisdiction."

Court judgment

Citing a judgment, the lawyer said "It is also pertinent to mention, the Hon'ble High Court of Karnataka in the case of E.Bhaskar Rao vs State of Karnataka, reported in ILR 2000 Karnataka, has held that construction of housing godown, poultry sheds, hatchery, workers' quarters for the purpose of poultry farming activities are equated with agricultural activities. For the said purpose, the lands need not be converted."

"From the aforesaid decision it is clear that, the lands on which poultry farms are constructed are agricultural lands and the said lands unless converted under Section 95 of the Karnataka Land Revenue Act, will be under Revenue jurisdiction. The local authorities viz. Panchayat, Municipalities or Municipal Corporation will have no jurisdiction to assess the same to taxes and demand the same from its owners."

Poultry Entrepreneurship Scheme: Government gives subsidy of Rs. 25 lakhs

You can establish a Parent farm, Rural hatchery, Brooder- Dairying (DAHD). Subsequent to this the subsidy is cum-mother unit for hatching eggs and chicks, can rear chicks up to four weeks in the Mother unit (with minimum 1000 parent layers). The Department of Animal Husbandry and Dairying, Government of India, gives a subsidy of up to Rs. 25 lakhs to you to become a poultry entrepreneur.

The Department provides 50% capital subsidy up to the subsidy limit, paid directly to the beneficiary account through Small Industries Development Bank of India (SIDBI), in two equal instalments.

The application process is -a) Fill the online application form www.nlm.udyamimitra.in. The application is then screened by the State Implementing Agency (SIA) before the loan is sanctioned. Then the State Level Executive Committee (SLEC) makes a recommendation and goes for approval to the Department of Animal Husbandry an disbursed.

ew-nutrition.com

Who is eligible? Individuals, Self-Help Groups (SHGs), Farmer Producer Organisations (FPOs), Farmer Cooperative Organisations (FCOs), Joint Liability Groups and Section 8 companies are eligible for availing subsidy.

Selection criteria: The applicant has to be a trained entrepreneur or employ trained experts to run the project; bank guarantee in self-financed projects; should have own land or leased land; and relevant documents for KYC.

For visit www.dahd.nic.in more details or www.nlm.udyamimitra.in or contact the State Animal **Husbandry Department.**



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Rs. 15,000 crore stimulus as Animal Husbandry Infrastructure Development Fund (AHIDF)



The animal husbandry sector has got a major boost from the Government under the 'Atmanirbhar Bharat Abhiyan' package stimulus wherein it has been allocated Rs. 15,000 crores as Animal Husbandry Infrastructure Development Fund (AHIDF). The Commissioner of Animal Husbandry, Karnataka, Mr. H.Basavarajendra informed an investor's meet here in Bangalore recently, that the fund would incentivize the sector specifically dairy processing & product diversification infrastructure; meat processing and product diversification infrastructure; animal feed plant and feed lab and breed improvement by technology intervention animal farming.

The eligible entities include individuals; farmer producer organizations (FPOs); micro, small and medium enterprises (MSMEs); Section 8 companies; and private companies. With regard to the poultry sector, he said entrepreneurs would be encouraged to set up meat processing unit; export oriented units; effluent treatment plant; meat microbiological testing laboratory; residue testing laboratory; and cold storage, preservation and refrigeration.

With regard to entrepreneurs interested in setting up animal feed plant, he said assistance would be provided to mini, medium and large plants. Funds would be provided for mixed ration block making unit; by-pass protein unit; mineral mixture plant; silage making unit and testing laboratory.

Under breed development with technology intervention, he mentioned that opportunities existed in sorted semen development programme or laboratory; embryo transfer technology (Lab) and farming; and high merit germ plasms (Lab) and farming.

He said under the National Livestock Mission (NLM), the government would incentivize entrepreneurs who go for value

addition such as hay / silage / total mixed ration fodder block and storage of fodder. The entrepreneurs would get 50% capital subsidy will be provisioned towards animal feed unit project cost up to a maximum of Rs. 50 lakhs subsidy. The beneficiaries include individuals, self help groups (SHGs); joint liability groups (JLG); farmer producer organizations (FPOs); dairy cooperative societies and section 8 companies.

The entrepreneurship projects under NLM for promoting rural poultry include bringing unorganized poulty farming sector into the organized sector. The idea is to popularize non conventional low-cost feeding; establishment of parent for rural hatchery and mother unit; with minimum 1,000 parent lay birds. The government of India will provide 50% back-end subsidy up to Rs. 25 lakhs per project.

The key features of the fund include providing loan up to 90% of the estimated / actual project cost from the scheduled bank based on submission of viable projects by eligible beneficiaries. The loan is not for land acquisition, working capital and old machines. There would be an interest subvention of 3% for all eligible entities. The fund will be managed by NABARD and credit guarantee fund of Rs. 750 crores has been established. Credit guarantee will be provided only for those projects which are viable and are covered under MSME defined ceilings. The guarantee coverage would be up to 25% of the principal amount approved. The maximum repayment period is 8 years inclusive of moratorium of 2 years on principla amount; the entire amount of AHIDF will be disbursed with the next three years.

The application may be downloaded at www.ahidf.udyanmimitra or at www.dahd.nic.in





RECIPE

INGREDIENTS:

- 1 kg Chicken cleaned and washed (750/800gms)
- 20-25 byadagi chillies (use according to your needs)
- 1 tblsp full heaped coriander seeds
- 1 tsp full heaped cumin seeds
- 8 seeds fenugreek seeds (methi dana)
- 1/2 tsp black pepper corns
- Small piece cinnamon (opt)
- 2 cloves (opt)
- 5 flakes garlic
- 1 lemon sized tamrind soaked in water
- 1 tsp turmeric powder
- · Salt as needed
- 1 medium onion finely sliced
- 1 tej patta
- 1 tblsp ghee



Marinate chicken with salt and turmeric for 30 minutes or more...

Heat a pan add dry roast chillies, methi seeds, jeera, dhania,garlic,black pepper, cinnamon and cloves

Grind all above fried items to fine powder then add soaked tamrind along with its water a fine paste (can add more water if necessary)

Heat a kadai add ghee ,onions ,tejpatta and fry well add marinated chicken cook for 5 minutes Add ground masala give a good mix and let this cook till oil starts separating Now add water (use water which is used to remove excess masala from mixi jar) check salt, add if necessary (we have already added salt to chicken for marination) Give a good boil

Enjoy with neer dosa or boiled rice.



CHICKENS CAN RECOGNIZE OVER 100 HUMAN OR CHICKEN FACES



There are more chickens on the planet than any other land animal.
Chickens don't just recognise other chickens, either. These faces included those of humans!
Chickens even remember positive or negative experiences with the faces they recognise and pass that information on to members of their flocks

CHICKENS HAVE BETTER VISION THAN HUMANS.



Humans avoid dust, but chickens love it. They dig pits in the ground and "wash" themselves with the dust to help with oil in their feathers and drive away parasites.

CHICKENS TAKE DUST BATHS



Humans have three different cone types in their eyes which let us see red, green and blue. Chickens, however, have an additional two cone types which allow them to distinguish violet and ultraviolet light. This is why they crow early in the morning – they can see the sunrise an hour before humans can.