

## Present scenario, future need, issues, challenges and strategies on livestock sector of Odisha

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Ever increasing population around the globe demands cheaply available livestock products to meet the future nutritional security which onus on animal husbandry to intensify the animal production and productivity on a war-foot basis in near future. Besides, Livestock sector plays an integral part for sustainable economic development among the rural communities in India, where nearly more than 70 percent people live in rural areas. In Odisha, majority of people thrive on livestock income for meeting their basic needs like purchasing inputs for farming, repaying the education fees of their children in schools, casing untoward medical expenses, giving dowery during girl child marriages etc. Livestock plays an integral part in the rural life of Odisha, serving as a movable asset / capital reserve which can be cashed / exchanged to meet the urgent needs of the family either at medical exigencies and / or wedding as well as rituals. Livestock provides an important source of organic manure for enhancing crop production without harming the soil quality. Manure may be used as domestic fuel thus minimizing the over use of limited resources of non-renewable energy. Simultaneously, these livestock are blamed for various emerging and re-emerging outbreaks, world-wide rise in temperature so to say culprit for producing methane resulting global warming.

Livestock comprises of animal husbandry, dairy and fisheries which are considered as income generating and employment providing sectors which plays a pivotal role in mitigating poverty and augmenting the rural household income. India, the most rapidly developing

agrarian country is a home for good numbers of livestock resources due to its climatic and geographical conditions as compared to other parts of world. People of Odisha used to experience a series of cyclones and other natural calamities every year where excess dependency on agriculture or crop production is perilous. Livestock sector should be given due importance with better strategic way to give income round the year for the people even during crop failure and natural calamities. Government of Odisha as well as India must formulate quick strategic plan as Livestock sector can provide income sustenance to the people living even in hilly and drought prone areas. Value addition to various livestock products with encouraging various entrepreneurial start-ups under the banner of “Atmanirbhar Bharat” may be the need of the hour to boom the economic stability of the poor marginal as well as landless farmers. Export of various animal products could increase the foreign exchequer of the nation.

Rapid urbanization and gradual improvement of the economic stability of the rural house hold as well as changing lifestyle of the people now showing a positive impact on meat and meat products industry in country. The slaughter rate for different animal species such as cattle, buffalo, pigs, sheep and goats are recorded a newer height such as 20%, 41%, 99%, 30% and 40% respectively.

**Livestock population of India and Odisha as per 20<sup>th</sup> livestock census**

Species	Population in Millions (India)	Population in Millions (Odisha)
Cattle	192.48	9.9
Buffalo	109.85	0.46
Sheep	74.26	1.28
Goat	148.88	6.39
Pig	9.06	0.14
Poultry	851.81	27.44

Production parameter	Production in India in 2019-20	Production in Odisha 2019-20
Milk	198439.57 thousand tonnes	2370.09 thousand tonnes
Egg	114 billion	23814.02 lakh nos
Meat	8599.40 thousand tonnes	204.68 thousand tonnes

**SWOT Analysis of meat industry in Odisha**

**1. Strength**

- a) Livestock resources
- b) Variety
- c) Organic farming/meat
- d) Price competitive
- e) Cheap labour

- f) Free from zoonotic diseases e.g BSE for cattle, Avian influenza
- g) Encouragement for meat export
- h) Round the year availability of raw materials
- i) Availability of huge man power
- j) High animal protein diet at lower price
- k) Vast domestic market

## **2. Weakness**

- a) Prevalence of animal diseases
- b) Lack of facilities of abattoirs
- c) Lack of effective centralised and uniform meat inspection
- d) Productivity and practices
- e) Lack of cold chain system
- f) Lower slaughter rate
- g) Lack of grading systems
- h) Low value addition/processed meat
- i) High capital cost of abattoirs and processing plants
- j) Religious and ethnic groups
- k) Poor utilisation of slaughter house by products
- l) Lack of food retail chains
- m) High requirement of working capital
- n) Low availability of new reliable and better accuracy instruments and equipment
- o) Lack of availability of trained and skilled personnel
- p) Inadequately developed linkages between R&D labs and industry

## **3. Opportunities**

- a) Huge availability of raw materials in the state offers vast potential for processing activities and value addition in the meat.
- b) Collaborative and integrative approach with quick developments in electronics, computer sciences, biotechnological interventions offering a great scope for industry automation and value chain management
- c) Globalization leading to open the doors for worldwide markets might equip the farmers to export and import its products as per will thus facilitating quick and better returns on investment as well as more employment opportunities.

- d) Investment prospects: Formulation of easy to adopt government guidelines for encouraging new start-ups in setting of ultra-modern abattoirs, cold chain units and mini or large poultry processing units by the rural youths. Industry-academia interface may be done on regular basis for finding newer prospects on cutting edge technologies and potential areas such as shelf-stable frozen meat, easy to cook nutritious animal products etc. Buffalo meat in surplus in the country may be used for advanced processing for encasing more foreign exchequer.

#### **4. Threats**

- a) Prevalence of animal diseases
- b) Lack of meat breeds
- c) Lack of cold chains
- d) Lack of quality assurance systems
- e) Lack of good manufacturing practices
- f) Lack of ante mortem and post mortem examinations
- g) Promotion of publicity
- i) Quick migration of skilled manpower to other industries with better working environment

#### **Challenges**

- a) Poor processing and marketing conditions
- b) Profitable disposal of adult birds
- c) Microbiological problems e.g Salmonella and other organisms
- d) Quality deterioration due to biochemical changes
- e) Bio-insecurity of products, e.g antibiotics, pesticides, etc
- f) Green fodder cultivation- Farmers are un-willing for cultivating the fodder due to less irrigation scenario in the state /country
- g) Medical expenses- For the treatment of animals, it is very cost effective.
- h) Marketing of livestock products- Important step for sustainability of any business.
- i) Government organisation structure and manpower- KVKs play important role for any kind of technical guidance. This is hardly reaching to service of farmers.

#### **Strategies for augmentation of meat industry in Odisha**

- a) Ensuring the production of wholesome and safe meat which can be accomplished by implementing, uniform code of meat inspection (ante-mortem and post-mortem inspection) and hygienic measures throughout the country.
- b) Regularisation of disease control programmes and to set up control points for restricting animal movements
- c) There is an urgent need for the technology up gradation, sanitary measures and modernisation of our existing slaughter houses and meat processing plants. A nationwide research survey on sanitary and hygienic status of fresh meat production and marketing chain including other factors effecting wholesomeness, safety of meat and by-products should be undertaken. Improvements suggested for quality assurance and safety programmes should be implemented.
- d) Research and development programme should be established to focus on post harvest technology and value addition of meat and meat products for higher returns
- e) Commercial farming of meat animals should be encouraged in an organised manner with appropriate animal husbandry practices and healthcare services.
- f) Improvement in the infrastructural facilities such as fast track refrigerated road and rail transport of commodities.
- g) Development of meat breeds for different species which will give better yield and healthy animals for wholesome meat production.
- h) There is a strong need for R&D in engineering inputs for the sector as the meat production and processing facilities are capital intensive
- i) The marketing of meat and meat products in domestic as well as international markets should be deeply studied and socio economic impact of the growth of the sector may be analysed from time to time.
- j) The role of biotechnology in processing and preservation of meat and egg products including development of newer, safe and healthy value-added products should be explored on priority.
- k) Genetic improvements through cross breeding programmes for intensive meat production. Development of genetically modified meat and meat products with various nutritional and health positives
- l) Development of modernised meat industry operating on technologies in abattoirs, processing, preservation, packaging and marketing of meat and meat products.
- m) Development of healthy meat foods with natural preservatives, ingredients and bio active compounds.

- n) Extension of shelf life of meat and meat products with innovative packaging materials and methods with special emphasis to bio-active edible films.
- o) Application of nanotechnology for improvement in the quality of meat and meat products.

### **Steps for augmentation of livestock productivity and utility in Odisha**

- a) By increasing the number of crossbred populations in the state for higher productivity and popularisation of genetically improved varieties of different food animals
- b) Popularisation and development of fodder farms in unused government lands
- c) Increasing the growth in population of improved broiler breeds of poultry
- d) Better nutritional and management practices taken for enhancing the productivity of animals and birds.
- e) Needs for diversification of poultry farming with improved and popular alternate poultry species.
- f) Rearing lambs and kids to larger weights which would contribute towards doubling meat production.
- g) Popularisation of the advantages of slaughter of animals at its optimum age.
- h) Promoting hygienic transport, storage and distribution of livestock products.
- i) Skill up gradation and capacity building training programme for the rural youths
- j) Creating efficient marketing channels that will help in providing remunerative prices to the producers.
- k) Strengthening human awareness regarding marketing of packaged livestock products.
- l) Need for development of infrastructure for processing and storage.
- m) Need for development of consumer awareness programmes for further processed value added livestock products to increase the consumer demands.
- n) Establishment of organised slaughter house for different livestock in different parts of the state.
- o) Hygienic meat production in rural, urban and semi urban areas.
- p) Development of convenient and variety of livestock products available to greater mass of people with less cost which will increase the demand from consumers.
- q) Establishment of improved and modern slaughter houses in urban areas.
- r) There should be licensed marketing sector for selling of quality animals in Odisha.

- s) Popularisation of small-scale entrepreneurship to take up the project for converting raw/fresh livestock products by adding value to it to a more convenient, nutritious and palatable product.

## Major Constraints

- a) Regional imbalance in poultry production.
- b) Mix of small/medium/large poultry farms.
- c) Exorbitantly high feed costs.
- d) Rising animal/poultry costs.
- e) Shrinking profit margin.
- f) Demand-Supply mismatches (5% increase in supply leads to 25% decrease in price and vice versa).
- g) Inadequate infrastructure (Small/Medium scale processing equipment, cold chains, Quality assurance, Measures of domestic markets/ Sales promotion, Disease diagnostics laboratory etc.).

## Conclusion

The potential of livestock resources of Odisha can be utilised in a better manner to get more financial benefit to strengthen the economic condition of the state as well as it can provide a better platform for alleviating unemployment in young youths and can provide a better nutritional security also. So, entrepreneurship in livestock sector should be encouraged in the state to get better return from the livestock sector.

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