



Indian Poultry Sector

For Prelims: [H5N1](#), [Livestock sector](#), [Avian Influenza \(bird flu\)](#), [Environmental pollution](#), [Greenhouse gas emissions](#), [20th Livestock Census](#), [Central Pollution Control Board \(CPCB\)](#)

For Mains: Issues in the Indian Poultry Sector

Source: TH

Why in News?

Recently, the [H5N1 outbreak](#) has highlighted **critical vulnerabilities** in the industrial [livestock sector](#), underlining the imperative for a **comprehensive reassessment** of animal welfare within India's environmental and legal frameworks.

- This outbreak reinforces the [One Health principle](#), which integrates public health, ecosystem health, and biodiversity conservation.

What are the Issues Faced by the Indian Poultry Industry?

- **Disease Outbreaks and Biosecurity:**
 - **Avian Influenza:** Regular outbreaks of [Avian Influenza \(bird flu\)](#) **disrupt production**, lead to the culling of birds, and create market panic, impacting consumption.
 - **Newcastle Disease (ND):** ND is another highly contagious viral disease that affects poultry health and productivity.
 - **Biosecurity Concerns:** Inadequate **biosecurity measures** in farms and live bird markets facilitate the spread of diseases.
 - **Other Concerns:** Chickens in industrial settings are often **confined in wired cages, known as 'battery cages,'** in high densities, leading to overcrowding and stress.
 - This practice leads to **poor air quality**, waste accumulation, and [greenhouse gas emissions](#), contributing to environmental pollution and degradation.
- **Market Fluctuations and Price Volatility:**
 - **Feed Price Fluctuations:** Volatile prices of **crucial poultry feed ingredients**, such as [corn](#) and [soybean meal](#), not only affect production costs but also exacerbate **import dependence** due to their significant reliance on imports.
 - **Consumer Demand Fluctuations:** Rumors and misinformation surrounding poultry products during disease outbreaks can drastically **reduce consumption**, affecting overall market stability.
- **Infrastructure and Supply Chain Challenges:**
 - **Limited Cold Chain Infrastructure:** It leads to spoilage and wastage, especially during peak production periods.
 - **Disorganised Supply Chain:** A fragmented supply chain with **multiple intermediaries** raises transaction costs and lowers farmer profits, while poor transportation infrastructure hampers product movement, affecting delivery times and freshness.
- **Policy and Regulatory Issues:**

- **Fragmented Regulatory Framework:** Multiple overlapping regulations across different levels of government create **confusion and compliance challenges** for poultry farmers.
- **Limited Access to Credit:** Small and medium-scale poultry farmers often struggle to **access formal credit**, hindering growth and modernization.
- **Labour Challenges:** Finding and retaining skilled labour can be difficult for poultry farms, impacting operational efficiency.
- **Other Issues:**
 - **Environmental Concerns:** Poultry farming can contribute to [water pollution](#) and air quality issues if waste management practices are inadequate.
 - The rising demand for **protein has led to increased antibiotic** use in poultry farming, raising concerns about antibiotic resistance and public health risks.
 - **Animal Welfare Concerns:** Ensuring proper animal welfare standards across the industry remains a challenge.
 - **Difficult exit:** Poultry farmers often face challenges in exiting the industry due to [contract farming arrangements](#), accumulated debts, and specialised skills required for the sector.

Issue of H5N1 Avian Influenza

- The outbreak of **H5N1 avian influenza** has brought to light the critical need to address **animal welfare**.
- **First spillover to humans:** The first instance of H5N1 infection spilling over to humans occurred in **1997 in Hong Kong**, directly from chickens.
- **Impact of H5N1 on India:** India reported its first H5N1 patient in Maharashtra in 2006. Subsequent outbreaks in December 2020 and early 2021 spread across 15 states, highlighting the widespread nature of the pathogen.
- **Global impact of H5N1:** H5N1 has demonstrated its ability to **cross species barriers**, causing mortality among **polar bears in the Arctic and seals and seagulls in Antarctica**, indicating its global impact.
- **Fatality rate of H5N1 in humans:** The [World Health Organization \(WHO\)](#) estimates the **fatality rate for H5N1 at 52%** based on recorded cases since 2003, highlighting its high risk to human health.

What are the Various Provisions Related to the Poultry Sector in India?

- **Status of Poultry Birds in India:**
 - According to the [20th Livestock Census](#), there are 851.8 million poultry birds in India. About 30% of this is '**backyard poultry**' or small and marginal farmers.
 - Chickens, turkeys, ducks, geese, etc, are reared in poultry farms for meat and eggs.
 - Tamil Nadu, Andhra Pradesh, Telangana, West Bengal, Maharashtra, Karnataka, Assam and Kerala have the highest poultry populations.
- **Legal Status of Poultry Units in India:**
 - **Guidelines for Poultry Farmers, 2021:**
 - **New Definition of Poultry Farmer:**
 - **Small Farmers:** 5,000-25,000 birds
 - **Medium Farmers:** More than 25,000 and less than 1,00,000 birds
 - **Large Farmers:** More than 1,00,000 birds
 - A Certificate of Consent from the [State Pollution Control Board](#) or Committee under the [Water Act, 1974](#), and the [Air Act, 1981](#), is necessary for establishing and operating a medium-sized poultry farm, with permission granted for 15 years.
 - The [Animal Husbandry Department](#) will be responsible for implementing the guidelines at the state and district level.
 - **Other Provisions:**
 - The [Central Pollution Control Board \(CPCB\)](#) classifies poultry units with **more than 5,000 birds as polluting industries**, subject to compliance and regulatory consent.

- The [Prevention of Cruelty to Animals \(PCA\) Act, 1960](#), prohibits the intensive confinement of animals, including chickens, recognising the importance of animal welfare.
- The **269th Law Commission of India Report** in 2017 **proposed draft rules** for the welfare of chickens in the meat and egg industries, emphasising improved animal welfare for safer food production.
 - Despite recommendations, the Draft Rules for the egg industry released by the **Ministry of Agriculture and Farmers' Welfare** in 2019 are considered inadequate.
- **Some Initiatives for the Poultry Industry:**
 - [Poultry Venture Capital Fund \(PVCF\)](#): The **Department of Animal Husbandry and Dairying** is implementing it under “**Entrepreneurship Development and Employment Generation**” (EDEG) of the [National Livestock Mission](#).
 - **National Livestock Mission (NLM)**: Different programmes under the NLM in which financial assistance is provided to States/Union Territories to implement **Rural Backyard Poultry Development (RBPD)** and Innovative Poultry Productivity Project (IPPP).
 - [Assistance to States for Control of Animal Diseases \(ASCAD\) Scheme](#): ASCAD under “**Livestock Health and Disease Control**” (LH&DC) which covers the vaccination of economically important poultry diseases viz., Ranikhet Disease, Infectious Bursal Disease, Fowl Pox, etc., including control and containment of emergent and exotic diseases like **Avian Influenza**.

What are the Steps Needed to Support the Poultry Industry?

- [Biosecurity](#) as a Global Priority:
 - **Compartmentalisation**: Leading poultry producers worldwide **segregate flocks by age and health status**, minimising disease transmission risk.
 - This practice can be adapted in India by **establishing compartmentalised poultry farming zones** or encouraging multi-age rearing within biosecure facilities.
 - **Vaccination Programs**: Rigorous vaccination protocols against prevalent diseases like Avian Influenza and Newcastle Disease are standard practice globally.
 - India can benefit by strengthening its **national vaccination programs** and ensuring wider outreach to small-scale farmers.
- **Enhancing Efficiency Through Technology:**
 - **Precision Feeding**: Advanced feeding systems that adapt to individual bird needs and **optimise feed utilisation** are gaining traction worldwide.
 - Encouraging Indian poultry farms to adopt these technologies, even in scaled-down versions, can improve feed conversion efficiency and reduce costs.
 - **Environmental Monitoring Systems**: Real-time monitoring of factors like temperature, humidity, and ammonia levels in poultry houses is crucial for optimal bird health.
 - Implementing such systems in Indian farms, even through low-cost sensors, can help maintain a healthy environment and prevent disease outbreaks.
- **Building a Sustainable Supply Chain:**
 - **Contract Farming**: Contract farming arrangements between producers and processors ensure market access and fair pricing for farmers.
 - **Cold Chain Infrastructure**: Investing in **robust cold chain infrastructure** to minimise spoilage during transportation and storage is a global best practice.
 - India can prioritise developing efficient cold chain networks, connecting remote production areas to major consumption centres.

Conclusion

- By adopting a **multi-faceted strategy** encompassing government support, industry collaboration, and farmer awareness, the Indian poultry sector can effectively implement global best practices.
 - It will lead to sustainable growth, **heightened biosecurity**, increased efficiency, and **greater competitiveness in the worldwide market**, thereby bolstering India's food security and economic prosperity.
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Drishti Mains Question:

Q. Discuss the challenges and opportunities in the Indian poultry sector. How can policy interventions and industry initiatives address these issues to ensure the sector's contribution to food security and economic growth?

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Prelims:

Q. H1N1 virus is sometimes mentioned in the news with reference to which one of the following diseases? (2015)

- (a) AIDS
- (b) Bird flu
- (c) Dengue
- (d) Swine flu

Ans: (d)

Mains:

Q. Can overuse and free availability of antibiotics without a Doctor's prescription, be contributors to the emergence of drug-resistant diseases in India? What are the available mechanisms for monitoring and control? Critically discuss the various issues involved. (2014)

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