# Science & Technology · GS - III

**Avian influenza outbreaks pose interconnected challenges to animal health, public health and the poultry economy. Examine the importance of a One Health approach in preventing and managing such outbreaks in India.**

| EXAM YEAR | PAPER | SUBJECT |
|---|---|---|
| DAILY PRACTICE 21/11/2026 | GS - III | Science & Technology |

| MARKS | WORD LIMIT |
|---|---|
| 15 | ~250 words |

## Answer Hint

**One Health, zoonotic diseases, animal-human-environment interface, veterinary surveillance, poultry biosecurity, culling, inter-agency coordination, public awareness, early warning systems, livelihood protection.**

## Model Answer

### Introduction

Avian influenza is a viral disease primarily affecting birds, with certain strains capable of infecting humans. Its outbreaks threaten poultry livelihoods, food supply chains and public health.

### Importance of the One Health Approach

1. **Integrated surveillance:** Coordination between veterinary, human health and environmental agencies enables early detection of outbreaks and potential zoonotic transmission.
2. **Farm-level biosecurity:** Restricting access, disinfection, safe disposal of infected birds and monitoring poultry movements reduce disease transmission.

3. **Rapid containment:** Targeted culling, quarantine and movement restrictions help prevent geographical spread.
4. **Human health protection:** Public awareness about avoiding sick or dead birds, along with protective measures for exposed workers, reduces infection risks.
5. **Livelihood protection:** Compensation, veterinary support and rehabilitation measures can reduce economic losses for poultry farmers.

**Challenges**

Fragmented surveillance, inadequate veterinary infrastructure, informal poultry markets and delayed reporting can weaken outbreak response.

**Way Forward**

India should strengthen integrated disease surveillance, laboratory capacity, veterinary services, inter-state coordination and risk communication. Standardised protocols and timely compensation should accompany containment measures.

**Conclusion**

A One Health framework recognises that human, animal and environmental health are interconnected. Integrating surveillance, prevention and rapid response is essential to reduce zoonotic risks while protecting poultry-based livelihoods.

BECOME IAS
AI POWERED UPSC PREP