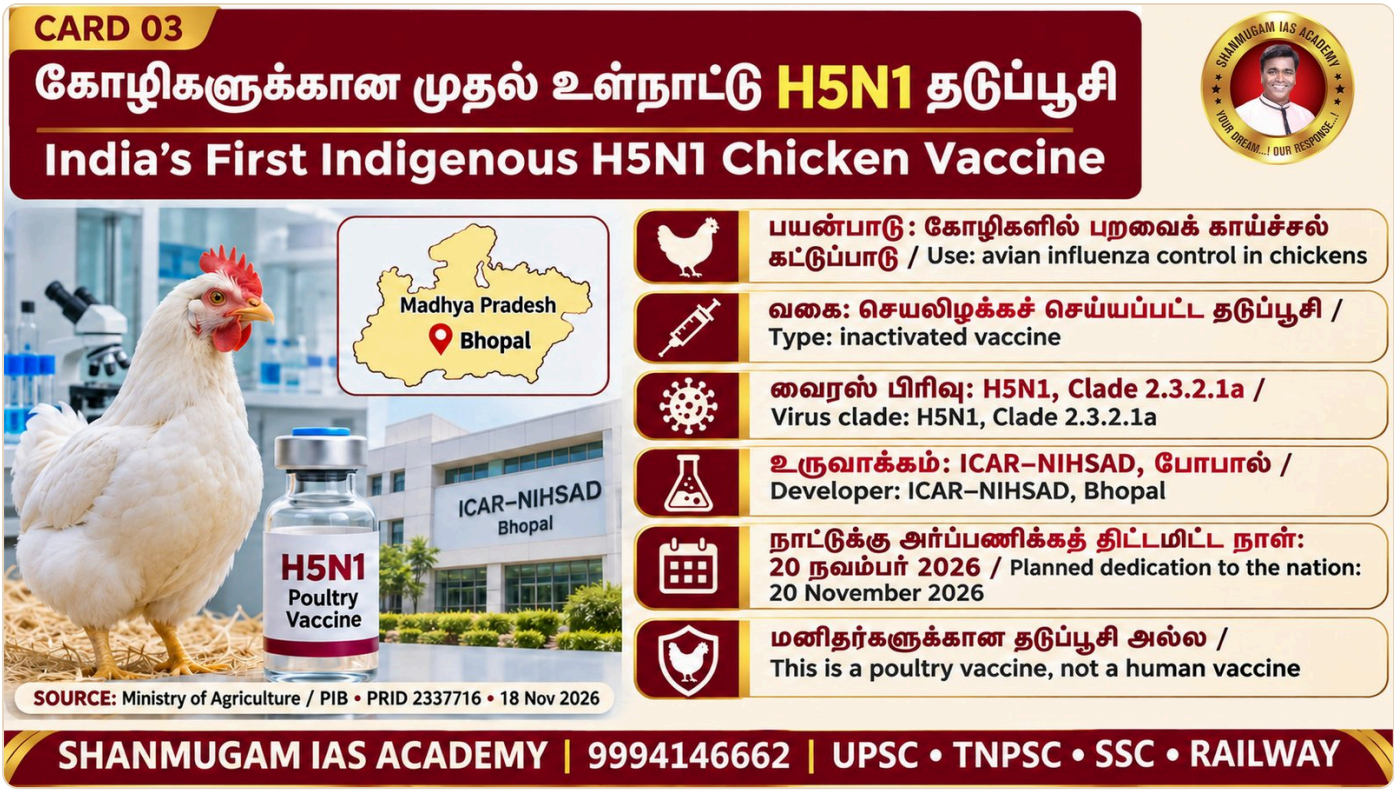
India's first indigenous H5N1 vaccine for chickens: launch on 20 Nov

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News

India's first indigenously developed H5N1 bird-flu vaccine for chickens will be dedicated to the nation by Union Agriculture, Farmers' Welfare and Rural Development Minister Shivraj Singh Chouhan on 20 November 2026 in Bhopal, PIB said on 18 November. It is an inactivated vaccine developed by the ICAR–National Institute of High Security Animal Diseases (NIHSAD), Bhopal. It is the first vaccine in India against 'Clade 2.3.2.1a' of the highly pathogenic avian influenza (HPAI) H5N1 virus. The ministry said this clade causes most bird-flu outbreaks in chickens and that no specific commercial vaccine against it is currently available. Outbreaks can kill nearly 100% of infected birds, and mass culling and trade curbs cause heavy losses to farmers. Since the disease was first detected in 2006, India has recorded more than 500 outbreaks of the H5N1 and H5N8 subtypes. The ministry also estimated that a major outbreak could cut India's GDP growth by up to 1.5%.

Key facts for the exam

Point	Details
Vaccine	Inactivated H5N1 (Clade 2.3.2.1a) HPAI vaccine for chickens
Developed by	ICAR–NIHSAD, Bhopal (Madhya Pradesh)
Dedication	20 Nov 2026 at NIHSAD Bhopal – Minister Shivraj Singh Chouhan

Point	Details
Significance	India's first vaccine against this clade
First outbreak in India	2006
Outbreaks so far	500+ (H5N1 and H5N8)
Economic impact	GDP growth may fall by up to 1.5%; 2006 losses ₹2,200–3,000 crore
Human cases (WHO)	1,003 cases, 479 deaths in 25 countries since 2003

Background

- Science: vaccines come in several types – inactivated (killed pathogen; e.g. Salk polio vaccine, Covaxin), live attenuated (e.g. BCG, oral polio), toxoid and mRNA vaccines. An inactivated vaccine cannot cause the disease and is therefore safe, but often needs booster doses. A 'clade' is a genetically related group of viruses descended from a common ancestor.
- Institutions: the Indian Council of Agricultural Research (ICAR), set up in 1929, works under the Department of Agricultural Research and Education (DARE) of the Union Agriculture Ministry. NIHSAD, Bhopal, is the national referral laboratory for bird flu. Another major viral disease of poultry is Ranikhet disease (Newcastle disease), named after the town of Ranikhet in Uttarakhand.
- History: India's first bird-flu outbreak was confirmed in February 2006 at Navapur in Maharashtra's Nandurbar district. Outbreaks have since recurred in several States. Until now, culling of birds on the infected farm and within a 1 km radius, plus surveillance, rather than vaccination, have been the main control tools.
- Economy and public health: poultry is a livelihood for millions of small farmers. Outbreaks halt egg and chicken exports and crash prices. Since this virus has also been found in mammals and in a few humans, controlling it in chickens is central to the 'One Health' approach.

Tamil Nadu link: Namakkal district is a major egg-production hub, so the vaccine matters to Tamil Nadu's poultry industry. In November 2026 H5N1 bird flu was confirmed in Kurinjipadi taluk of Cuddalore district, and birds were culled. Tamil Nadu has a long vaccine history: the Pasteur Institute of India was set up at Coonoor, Nilgiris district, in 1907, and the King Institute is at Guindy, Chennai. The country's first veterinary university, the Tamil Nadu Veterinary and Animal Sciences University (TANUVAS), was set up in Chennai in 1989; its College of Poultry Production and Management is at Hosur.

Frequently asked questions

What is this news about?

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What are the key facts to remember for the exam?

Vaccine: Inactivated H5N1 (Clade 2.3.2.1a) HPAI vaccine for chickens; Developed by: ICAR–NIHSAD, Bhopal (Madhya Pradesh); Dedication: 20 Nov 2026 at NIHSAD Bhopal – Minister Shivraj Singh Chouhan; Significance: India's first vaccine against this clade.

What is the background to this news?

Science: vaccines come in several types – inactivated (killed pathogen; e.g. Salk polio vaccine, Covaxin), live attenuated (e.g. BCG, oral polio), toxoid and mRNA vaccines.

Practice questions (with answers)

1. What does an 'inactivated' vaccine, like the one made by NIHSAD, contain?

A) Killed pathogen

B) Live weakened pathogen

C) Ready-made antibodies

D) Antibiotic

Answer: A – Explanation: A killed pathogen – it cannot cause disease but may need boosters, e.g. Salk polio vaccine, Covaxin. BCG is live attenuated.

2. The Indian Council of Agricultural Research (ICAR) functions under which department of the Union Government?

A) Dept of Biotechnology

B) Dept of Sci. & Tech.

C) DARE (Agri. Res. & Edu.)

D) Animal Husbandry Dept

Answer: C – Explanation: DARE – under the Agriculture Ministry. ICAR was set up in 1929; its Director General is also Secretary, DARE.

3. Ranikhet disease, a viral disease of poultry, is named after a town in which State?

A) Uttarakhand

B) Himachal Pradesh

C) Sikkim

D) Meghalaya

Answer: A – Explanation: Uttarakhand (Almora district). It is known worldwide as Newcastle disease and, like bird flu, devastates poultry.

4. India's first bird-flu outbreak was confirmed at Navapur in 2006. Navapur is in which State?

A) Gujarat

B) Maharashtra

C) West Bengal

D) Keralam

Answer: B – Explanation: Maharashtra – Nandurbar district, Feb 2006. Since then more than 500 outbreaks of H5N1 and H5N8 have been recorded.

5. Which State set up the country's first veterinary university, in 1989?

A) Punjab

B) Tamil Nadu

C) Keralam

D) Maharashtra

Answer: B – Explanation: Tamil Nadu – TANUVAS, Chennai (20.9.1989). Its College of Poultry Production and Management is at Hosur.

Sources: PIB – Ministry of Agriculture (18 Nov 2026, PRID 2337716); DAHD – Action Plan on Avian Influenza (dahd.gov.in); ICAR – icar.org.in; TANUVAS – tanuvas.ac.in; Pasteur Institute of India. © Shanmugam IAS Academy.