# Member's update on Avian Influenza (AI) [Mongolia]

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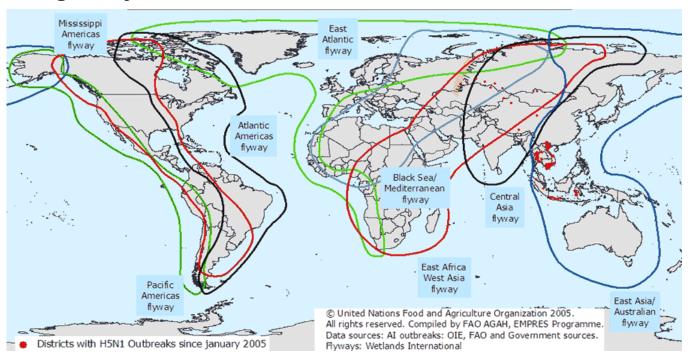






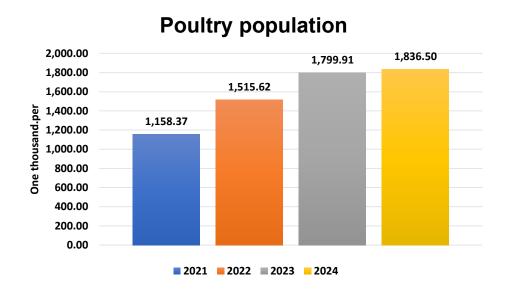
### **Disease situations**

#### **Migratory waterfowl:**



A combination of geographical features makes Mongolia an ideal location for understanding the epidemiology of avian influenza viruses in wild birds. There are three main migration routes (*East-Asia/Australasia, Central-Asia/India, West-Asia/Africa and Mediterranean/Black-see*) passing through Mongolia. Around 391 species of migratory birds arrive in Mongolia.

#### **Poultry farm:**



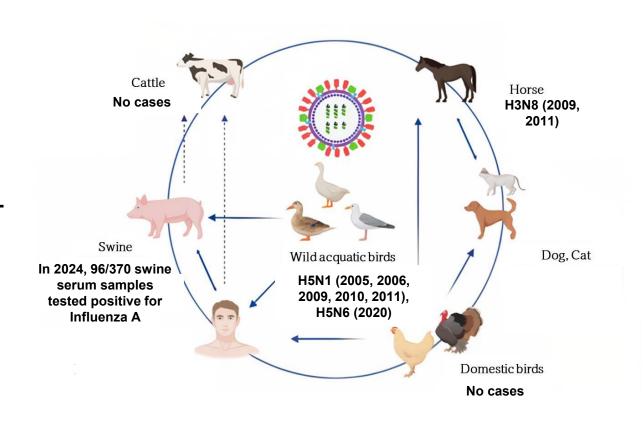
Around Ulaanbaatar city, there are 18 large domestic poultry farms and more than 200 households that raise poultry. Over the last ten years, the number of live chickens for breeding and production has increased, including meat, eggs, and feed. However, there has never been an outbreak of Avian Influenza (AI) in domestic poultry.



#### **Disease situations**

The 3 isolates in May 2009, 7 isolates in July 2009, and 4 isolates in May 2010 were classified into **clade 2.3.2**, the prototype of this clade was isolate from Hong Kong, China, and Vietnam in 2005. All viruses in 2010 have almost same sequence and were similar to that 2009.

Locations	Subtypes of influenza virus			
	2020	2021	2022	2023
	1200 samples	1350 samples	1300 samples	850 samples
Arkhangai, Bulgan,	H5N6 (6)	H3N8 (8)	H3N8 (9) H4N6 (4)	H3N8 (13)
Khuvsgul,	H3N8 (8)	H2N2 (2)		H2N2 (2)
Khovd,	H4N6 (3)	H4N6 (3)		H4N6 (8)
		H3N8 (2) EI		
Positive rate	1.4%	1.11%	1.0%	1.0%



There were several HPAI H5N6 **2.3.4.4h clade** viruses isolated from wild whooper swan in Mongolia in 2020, some of which included mammalian host-specific markers



# Disease prevention and control

#### **☑** Disease Prevention and Control Measures

- Enforcement of movement restrictions during outbreaks
- Disinfection and biosecurity measures at poultry farms and live bird markets
- Implementation of quarantine protocols for affected areas
- Strengthening border inspection and import control to prevent virus introduction

#### National Strategy for Al Control

- ✓ Integrated into the National Contingency Plan for Animal Disease Outbreaks
- ✓ Risk-based surveillance focusing on high-risk wetlands and poultry clusters
- ✓ Coordination by the General Authority for Veterinary Services (GAVS) with support from regional offices
- ✓ Strategic alignment with WOAH and FAO regional frameworks

# Surveillance, Outbreak Response, and Containment

- Targeted surveillance in wild bird habitats and backyard poultry settings
- Rapid response teams trained to investigate and contain AI outbreaks
- Use of real-time RT-PCR and serological testing for early detection

#### Collaboration with Stakeholders

- Regular coordination with international agencies (FAO, WOAH, USAID, JICA, etc.)
- ➤ Joint surveillance and capacity-building projects with research institutions
- ➤ Engagement with environmental agencies and wildlife conservationists to monitor wild bird Al risk

# Laboratory capacity

#### Laboratory System

- State central veterinary laboratory (SCVL) under the General Authority for Veterinary Services
- laboratories support Regional veterinary field diagnostics
- 21 province's laboratory



- RT-PCR, qRT-PCR for H5, H7, H9 and NA subtypes
- Sanger sequencing, Minion methods
- HA, HI tests and virus isolation (eggs)
- ELISA, AGID, for antibody detection

#### **Proficiency Testing**

- Participates in international PT programs (e.g., FAO/OIE)
- Periodic refresher training for staff









## Challenge and possible solutions

- W Key Challenges
- Al virus introduction via migratory wild birds
- Limited resources for surveillance and response in remote areas
- Low awareness among backyard poultry farmers
- Lack of consistent biosecurity practices at small farms
- Limited vaccine access or stockpile (if needed)
- Actions and Possible Solutions
- Enhanced targeted surveillance in high-risk wetland zones
- Training programs for veterinarians and local animal health workers
- Community awareness campaigns on AI risks and reporting
- Improvement of farm-level biosecurity protocols
- Collaboration with international partners for technical and vaccine support



# Proposal for future activities

#### Regional Collaboration Topics

- Establishing an East Asia Al surveillance network focused on migratory bird flyways
- Sharing real-time outbreak data and risk assessments among member countries
- Development of a harmonized response protocol for cross-border AI outbreaks

#### Technical Proposals

- Joint research on Al virus evolution and mutation patterns in East Asia
- Cross-country proficiency testing and inter-laboratory validation programs
- Comparative studies on wild bird Al reservoir species and their impact on poultry systems

#### **©** Capacity Building Activities

- Regional simulation exercises for AI outbreak response
- Training workshops on emerging Al strains and biosecurity innovations
- Resource and knowledge sharing on Al vaccine access and deployment



#### Summer holiday in Khangal Bulgan province July, 2025

# Thank you

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