Regional workshop on avian disease prevention and control in Asia and the Pacific 2024

National prevention and control measures for avian diseases

Japan

Ranna Nakao

TECHNICAL OFFICIAL,
MINISTRY OF AGRICULTURE,
FORESTRY AND FISHERIES

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World Organisation for Animal Health
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Ministry of Agriculture, Food and Rural Affairs

ONE HEALTH POULTRY HUB

Poultry population in Japan

- Broiler

	2016	2017	2018	2019	2021	2022	2023	2024
Number of farms (Change from the previous year)(%)	2,360 (▲0.8)	2,310 (▲2.1)	2,260 (▲2.2)	2,250 (▲0.4)	2,160 (▲4.0)	2,100 (▲2.8)	2,100 (0.0)	2,050 (▲2.4)
Number of broilers(million) (Change from the previous year)(%)	134 (▲1.0)	135 (0.4)	139 (2.9)	138 (▲0.4)	140 (1.0)	139 (▲0.3)	141 (1.6)	145 (2.4)

- Layer

	2016	2017	2018	2019	2021	2022	2023	2024
Number of farms (Change from the previous year)(%)	2,440 (▲4.7)	2,350 (▲3.7)	2,200 (▲6.4)	2,120 (▲3.6)	1,880 (▲11.3)	1,810 (▲3.7)	1,690 (▲6.6)	1,640 (▲3.0)
Number layers(million) (Change from the previous year)(%)	135 (0.8)	136 (1.1)	139 (2.2)	142 (2.0)	141 (▲0.8)	137 (▲2.4)	129 (▲6.3)	130 (0.9)

Source: MAFF STAT

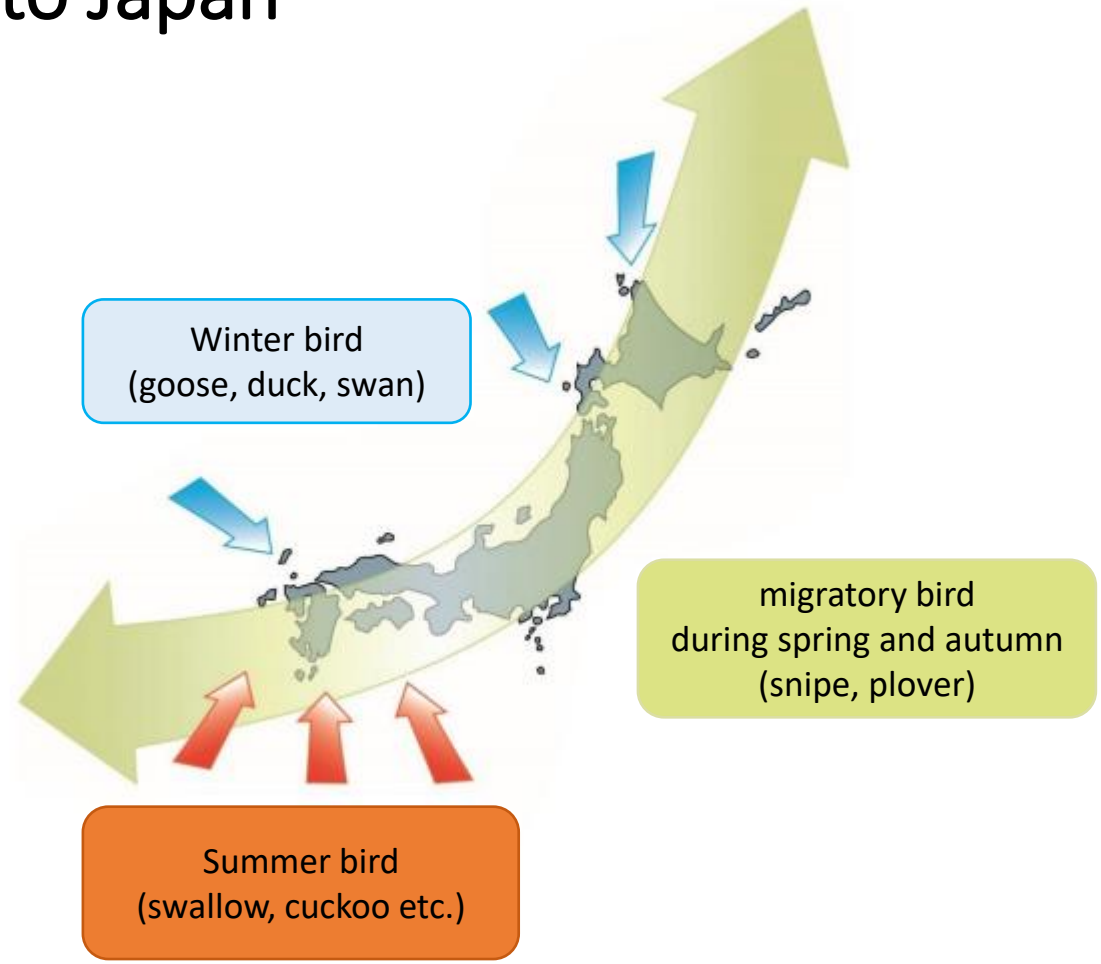
Risk for introduction of HPAI into Japan

Possible Invasion routes into Japan

- Migratory bird:
  High risk in winter (October to May)
- People and objects:
  Persons who have visited places with domestic animals overseas
  Imported animals and animal products

Possible Invasion routes into the poultry house

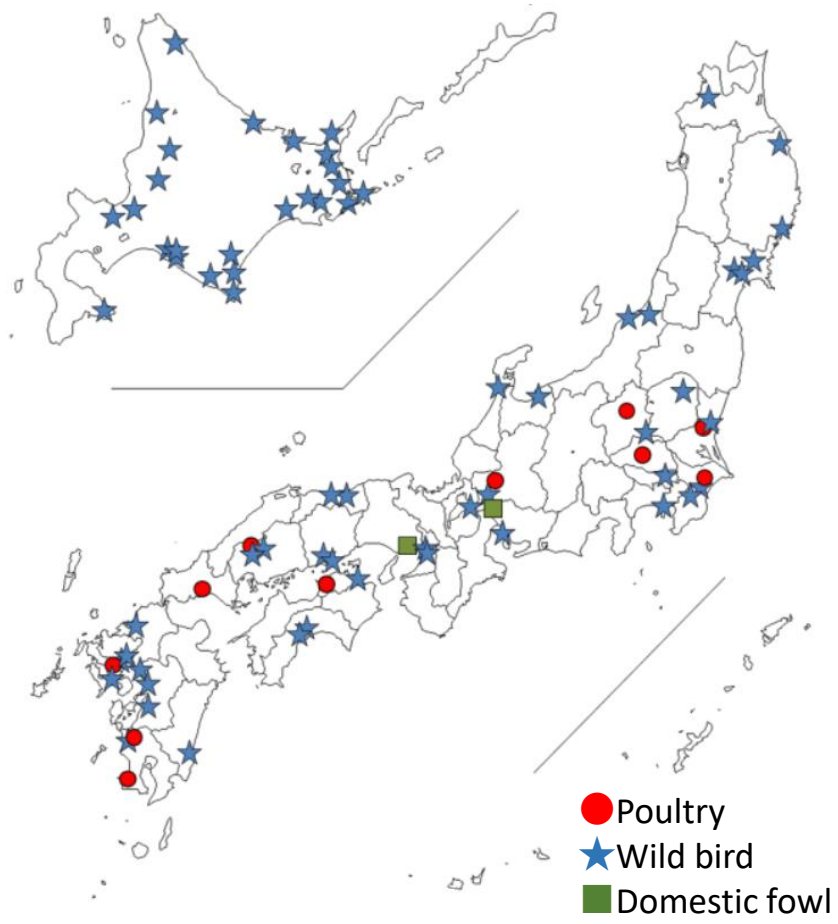
- Birds
  (Migratory bird, wild birds infected in country)
- Wild animals
- Poultry owners
- Contaminated articles, feed, water



Migratory birds in Japan

Source: Manual on HPAI in Wild Birds (In Japanese), Ministry of the Environment

2023-2024 HPAI epidemics



Other positive cases:
Feces(5), Environmental sample(8), Fly(1)

Poultry: Approximately 0.86 million birds were culled

	Date	Purpose	Number of birds (thousand)	Subtype
1	Nov 25	Layer	40	H5N1
2	Nov 27	Layer	72	H5N1
3	Nov 30	Layer	45	H5N1
4	Dec 3	Layer	23	H5N1
5	Jan 1	Layer	360	H5N1
6	Jan 5	Broiler	50	H5N1
7	Jan 27	Layer etc.	230	H5N1
8	Feb 6	Layer	70	H5N1
9	Feb 11	Broiler	5.4	H5N6
10	Mar 12	Layer	80	H5N1
11	Apr 29	Layer	63	H5N1

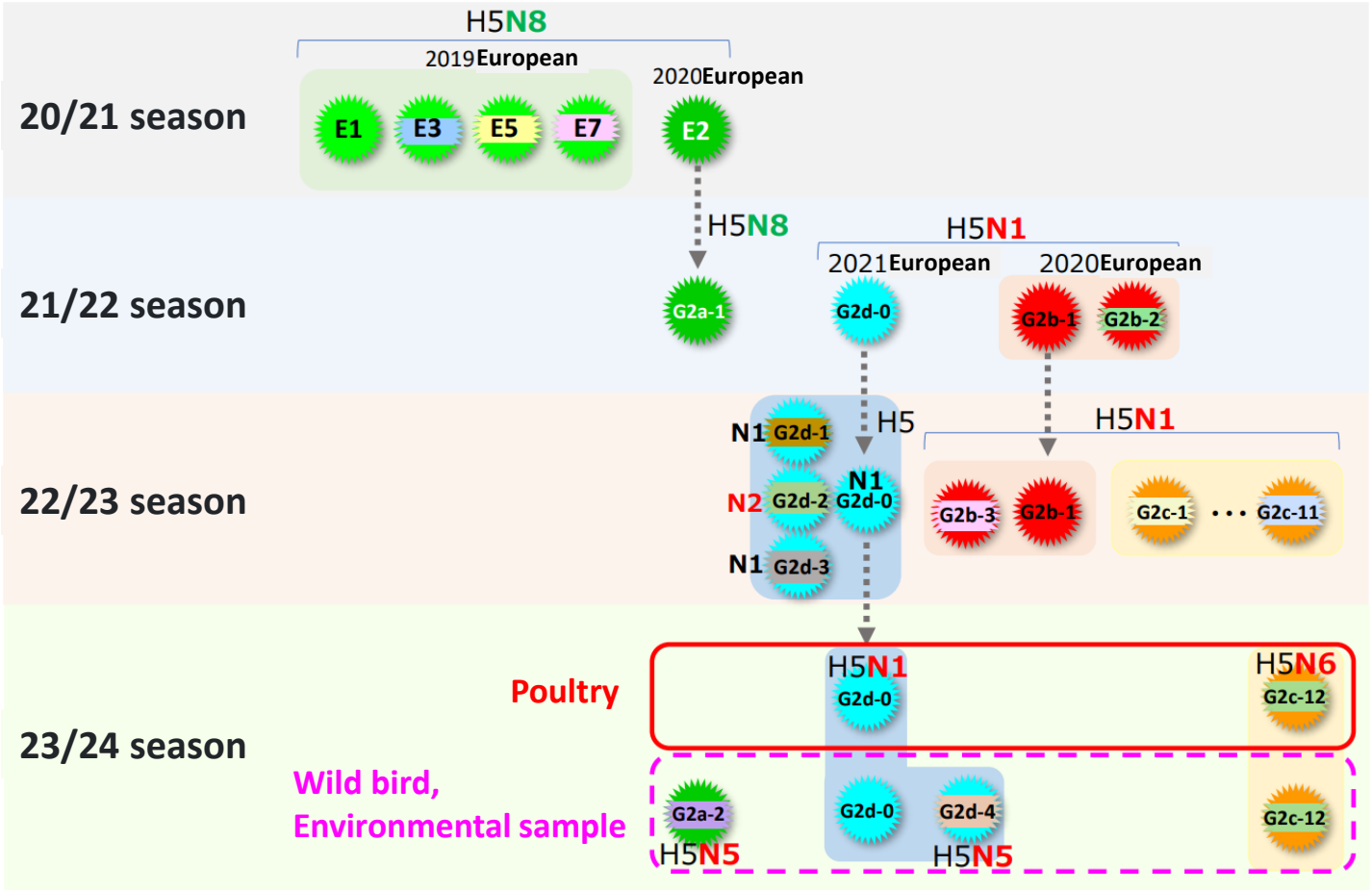
Wild bird: 23 species, 140 cases, 188 birds

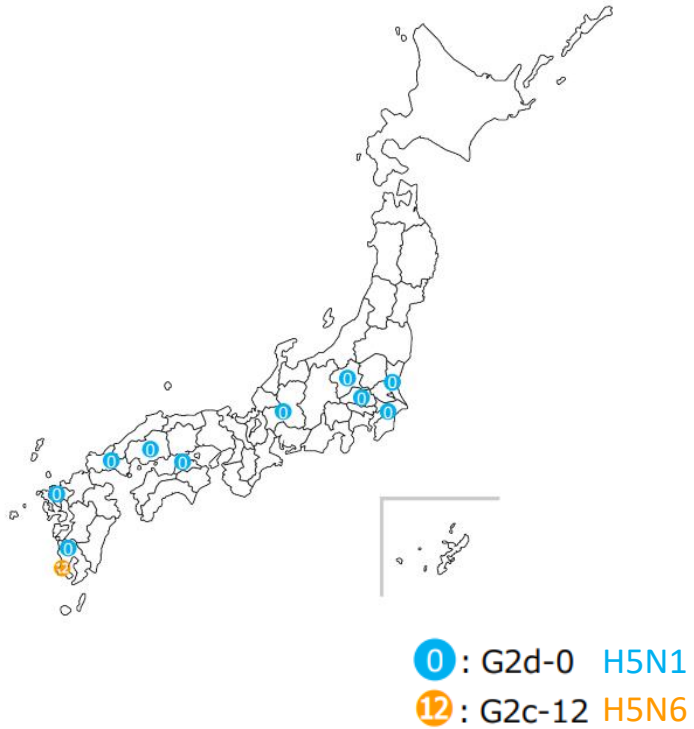
Period	Species	Number of cases	Subtype (number of cases)
2023 Oct.-2024 May	Duck	34	H5N1 H5N5 H5N6
	Waterfowl	14	
	Raptor	20	
	Crow	72	

Domestic fowl

Date	Species	Subtype
Nov 23	Hawk	H5N1
Dec 14	Harris's Hawk	H5N1

Transition of genotypes of HPAI virus recovered in Japan





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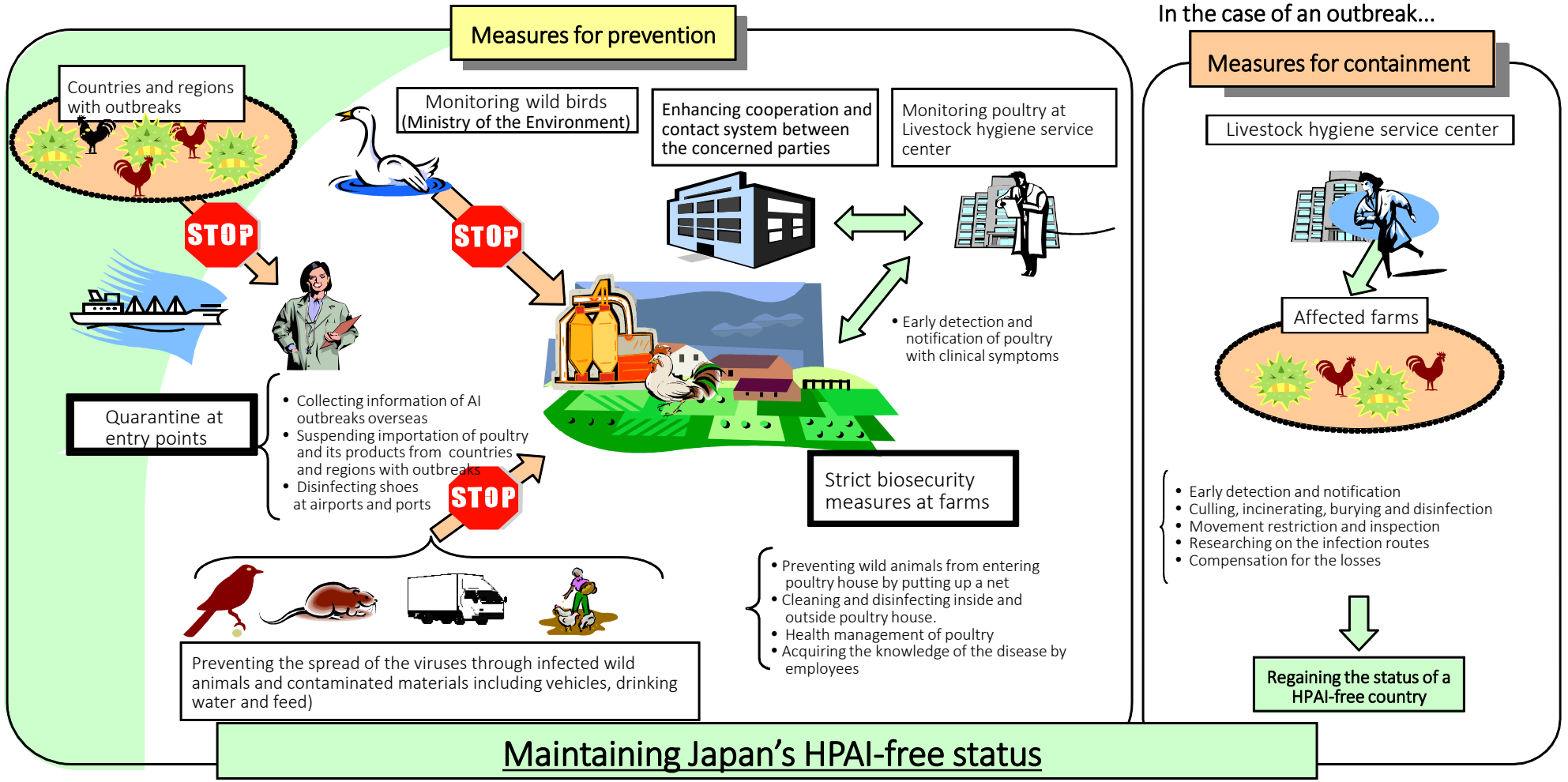
Outline of control measures for HPAI



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Response measures to HPAI outbreak

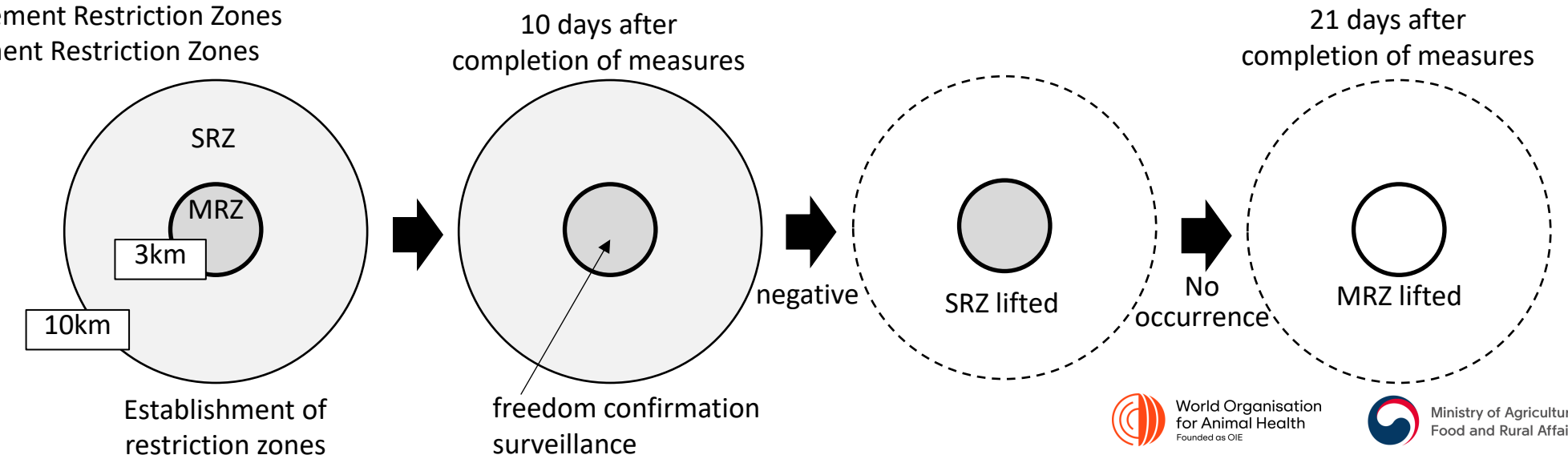
Notification and inspection

1. Notification from vet/farm
2. Clinical inspection, rapid tests by prefectural vets
3. Establishment of MAFF HPAI Response Headquarters
4. RT-qPCR, RT-PCR, virus isolation

Response measures

- Control measures on the affected farms
  1. Culling
  2. Incineration/burial
  3. Disinfection of the premises
- Establishment of the Restriction Zones
- Establishment of disinfection points
- Surveillance during outbreaks and post-outbreak

MRZ: Movement Restriction Zones
SRZ : Shipment Restriction Zones



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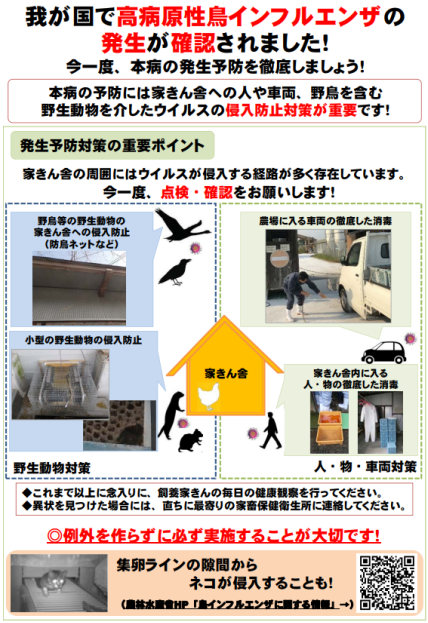
Collaboration with stakeholders

MAFF conducts a wide range of public relations activities to improve the awareness among stakeholders.

1. Timely warning notifications to prefectural governments
2. Holding a national conference to alert stakeholders before the onset of HPAI season
3. Distribution of leaflets to increase awareness among farmers
4. Simulation exercises

↑ Minister's speech at national conference



Leaflets on prevention measures →

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Costs of response measures

Compensation to poultry owners

- Culling (Reduction of compensation for those who did not take the necessary measure.)
- Economic losses caused by movement restrictions

Financial support to prefectures

- Cost for control disinfection, culling, incineration and burial, etc.

Response measures to avian influenza outbreak - surveillance

	Investigation of epidemiologically related poultry	Inspection of farms located within the restriction zone	
		Disease detection surveillance	Freedom confirmation surveillance
Implementation period	Immediately after the identification & After 14 days of contact	within 24 hours	10 days after the completion of control measures
Target sample	• Poultry that came into contact in an 8-to-21 day period before (LAPI: 8-to-180 days) • Poultry raised with suspected affected animals • Poultry that come into contact with persons, vehicles, etc. that were contaminated.	Farms located within the MRZ (LPAI: MRZ&SRZ)	
Test methods	• Clinical examination (immediately) • Report daily poultry mortality • Clinical examination, rapid test (after 14 days)	Tracheal swabs and cloacal swabs viral isolation, serum antibody test	
Number of sample	5 birds per poultry house	5 birds per poultry house	

Viral isolation test and antibody prevalence survey

Test and survey the following animals if necessary.

(1) Wild birds

(2) Wild terrestrial animals

(3) Swine

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Response measures to avian influenza outbreak - surveillance

	Fixed-point monitoring	Enhanced monitoring
Area	The whole country	The whole country
Implementation period	Every month	October to May (High-risk season when migratory birds fly from overseas to Japan)
Targeted farm / location	High-risk farms such as those located near the landing zones of wild birds and open type poultry houses.	Random
Number of farm / location	3 x (Number of LHSC) (per prefecture)	Maximum 30 (Detecting 10% of infections with 95% confidence)
Number of sample	10 birds per farm	10 birds per farm
Test methods	Virus isolation Serological test	Serological test

National prevention and control for HPAI

Measures	Y/N	Description
1. Programme to control or eradicate disease	Y	"Guidelines for Control of Specific Domestic Animal Infectious Disease Concerning HPAI and LPAI" .
2. Veterinary legislation	Y	"Act on Domestic Animal Infectious Diseases Control"
3. Emergency preparedness and response plans	Y	"Guidelines for Control of Specific Domestic Animal Infectious Disease Concerning HPAI and LPAI" .
4. Disease surveillance	Y	Monitoring poultry and wild birds. Refer to page 6 (Outline of control measures for HPAI) and page 10, 11 (Surveillance).
5. Disease reporting	Y	Early detection and notification of poultry with clinical symptoms. Refer to page 6 (Outline of control measures for HPAI).
6. Detection and management of cases	Y	Epidemiological investigation.
7. Measures to prevent introduction or spread of disease	Y	Quarantine at entry points. Strict biosecurity measures at farms. Refer to page 6 (Outline of control measures for HPAI).
8. Vaccination	N/Y	Preventive vaccination is prohibited. Emergency vaccination may be applied depending on the epidemiological situation.
9. Measures to protect public health	Y	Collaborating among relevant ministries, e.g. "Pandemic Influenza Preparedness Action Plan"
10. Communication and collaboration among all competent authorities	Y	Share information, establish collaborative system during normal times and outbreaks, collect & exchange opinions, hold meetings among relevant ministries.
11. Awareness programme for relevant stakeholders	Y	Hold training programs and workshops. Refer to page 8 (Collaboration with stakeholders).

Guidelines for Control of Specific Animal Infectious Disease - HPAI

Guidelines for Control of Specific Domestic Animal Infectious Disease Concerning HPAI and LPAI

Chapter 1 Basic policies	• Outbreak prevention • Early detection and notification • Prompt and appropriate initial response
Chapter 2 Prevention measures	• Outbreak prevention and preparedness for an outbreak • Surveillance
Chapter 3 Control measures	• Detection of abnormal poultry • Control measures on the affected farms • Restriction or prohibition of traffic • Vaccination • Epidemiological investigation
Chapter 4 Others	Remarks

Biosecurity Standards (chicken and other poultry)

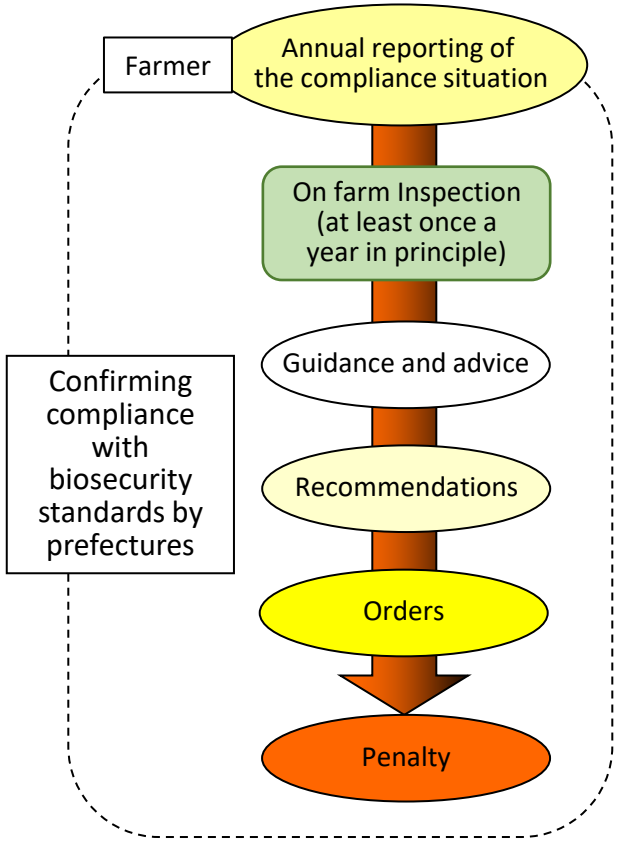
Biosecurity Standards based on the Act on Domestic Animal Infectious Diseases Control

I. Basic requirements for animal biosecurity
- Establishment of biosecurity area
- Preparing biosecurity manuals
- Veterinarian instruction

II. Prevention of pathogens entry into the biosecurity area
- Specific clothing and footwear
- Disinfection of vehicles

III. Avoidance the spread of pathogens in the biosecurity area
- Prevention of wildlife intrusion
- Disinfection within the biosecurity area

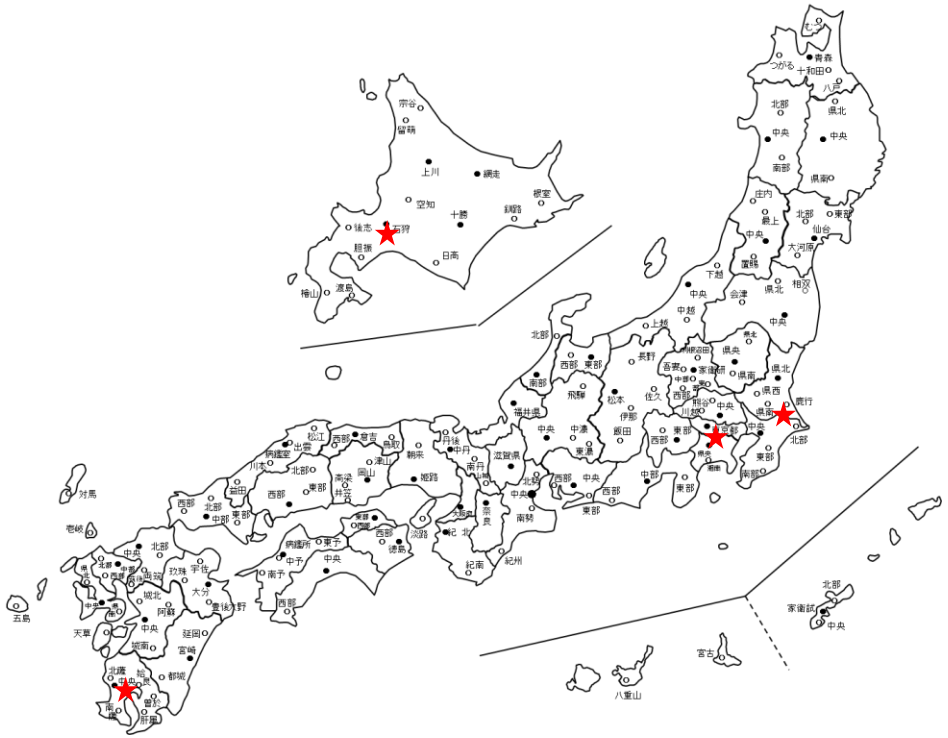
IV. Avoidance of the spread of pathogens outside the biosecurity area
- Disinfection of exiting vehicles & shipping items
- Observation of health conditions (Shipping poultry)



Laboratory capacity

- Japan's official veterinary diagnostic laboratories operate at two levels,

  the National Institute of Animal Health (NIAH) and the prefectural Livestock Hygiene Service Centre (LHSC) laboratories.



★ National Institute of Animal Health: 4
Local Livestock Hygiene Service Centers: 166
(Jun. 21, 2024)

NIAH

LHSC

Challenges and solutions in implementing national plan

Points of the results of epidemiological surveillance on HPAI outbreaks in season 2023/2024

Challenges	Solutions
A deficiency in biosecurity implementation was confirmed at the affected farms.	Owners of poultry should properly understand and assess the compliance status of their own farms' biosecurity. LHSC should confirm that the improvement measures have been properly implemented.
Some farms on which HPAI reoccurred have environmental factors that lead to an especially high risk of outbreak.	Awareness of high-risk farms and areas and confirmation of thorough biosecurity measures on the farms.
The presence of an environment that attracts wild animals and birds around the affected farm has been confirmed in many cases.	Implement measures at the regional level to prevent the attraction and invasion of wild birds into the farm.
Viruses in the environment were often detected at farms where notification was delayed for several days.	Early detection and notification.
To predict and decrease the risk of HPAI invasion into the country, surveillance of the overseas outbreak situation is important.	Analyze and monitor the situations of outbreaks abroad and the virus genotype. Investigate the risk of invasion by dust and flies.

Thank you

Ranna Nakao

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