

Emergency Response for HPAI in China

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HPAI occurrences in China

- The introduction of HPAI into China's poultry population has caused serious problems of the country's economy and society.
- From January 2004 to April 2007, 93 outbreaks of HPAI confirmed in 22 provinces of China, with totally more than 34 million poultries culled.
- Migratory bird cases occurred in Qinghai and Tibet in 2005 and 2006.
- Besides that, 25 human cases were found from 2005 mainly in southern China.



We benefit from the good emergency response system, risk prevention system and surveillance & early-warning system

- With the integrated compulsory vaccination and stamping-out policy, the times and frequencies of HPAI occurrence in China have been distinctly decreased.
- 50 outbreaks occurred in 2004
- 30 outbreaks occurred in 2005
- 10 outbreaks occurred in 2006
- Until now in 2007, only 4 outbreaks occurred in 4 provinces.
- Generally, the disease situation is appeared to be mitigated.





1. Control Strategy for HPAI

1.1 Prevention First

- As stipulated by ***The Law of the People's Republic of China on Animal Epidemic Prevention***, the State practices the prevention first policy for controlling of infectious animal diseases.
- HPAI is classified as one of the Category I Animal Disease in China.
- After HPAI outbreaks occurred in 2004, compulsory vaccinations were imposed on poultry flocks in high risk areas according to relative laws.
- The Chinese Government decided in Oct., 2005 to implement compulsory vaccination towards all poultry flocks.



关于印发《高致病性禽流感疫情处置
技术规范(试行)》的通知

各省、自治区、直辖市农业、农垦、畜牧、渔业、乡镇企业、农机化厅(局、委),新疆生产建设兵团农业局:

《高致病性禽流感疫情处置技术规范(试行)》已经2004年2月2日农业部第7次常务会议审议通过,现印发你们,请遵照执行。



1.2 Integrated control measures

- It is speculated in *The National Preparedness Regulation for Highly Pathogenic Avian Influenza* and *The Technical Rules for Emergent Handling of HPAI* that China implements the Integrated Compulsory Vaccination & Stamping-out Policy to tackle HPAI.
- According to the regulations, while comprehensive vaccination is practiced, disease surveillance, quarantine supervision and movement control are strengthened.
- In case should there be any outbreaks, the affected poultry flocks and flocks at high risk should be resolutely culled according to the principle of “Early detection, rapid action and strict measures”, and the poultry flocks in the threatened areas are subjected to emergent vaccination to prevent the infection from spreading.

1.3 Multi-ministries cooperation

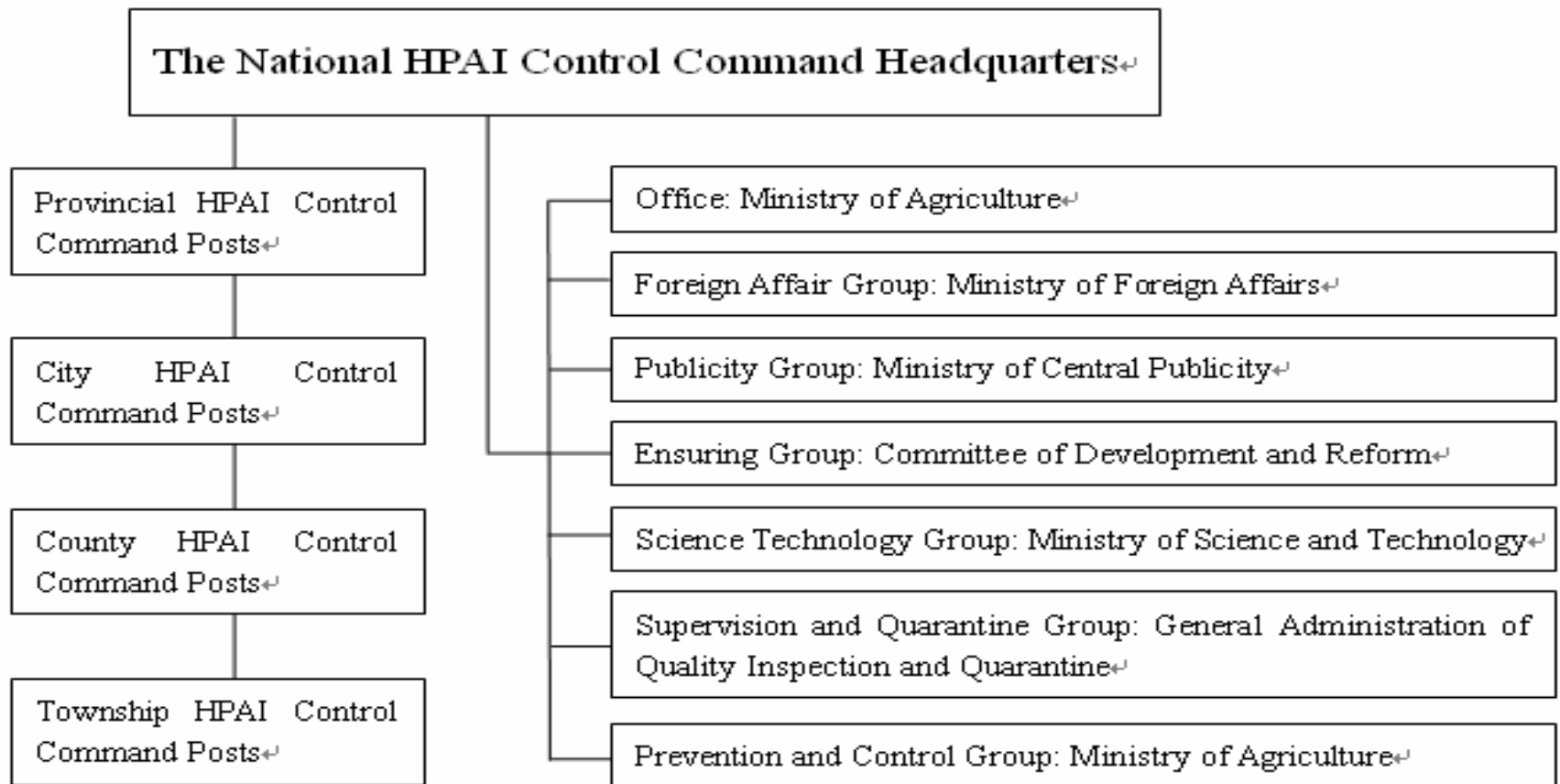
- ***The Regulations on Emergency Response to Major Animal Epidemic*** stipulates that the state applies the guidelines of “strong leadership, sound coordination, reliance on science and law, participatory approach, decisive intervention” in prevention and control of major animal diseases.
- It acquires the people’s governments at all levels to establish commanding headquarters for major animal diseases, and set up the cooperative mechanism to coordinate relative works among agricultural, health, financial, industrial and commercial, public security departments and the people’s liberation army.
- Their respective responsibilities and duties for quick-response to HPAI and other major animal diseases should be identified clearly.



重大动物疫情应急条例

中国法制出版社

After the first HPAI outbreak in Guangxi on Jan. 23, 2004, the State Council founded the National HPAI Control Command Headquarters on Jan. 30, 2004, with a vice-premier as the general commander



Military army are very important in HPAI control



1.4 Provide support for the development of poultry industry

- The Chinese Government has worked out poultry industry support policy, printing and issuing “The State Council Office’s Opinions on Supporting the Poultry Industry Development”,
- giving financial allowances for poultry vaccination and poultry culling in infected areas,
- exempting the concerned enterprises from income taxation,
- returning the VAT as soon as collected,
- fulfilling the export tax drawback,
- and reducing or remitting partial local taxation.



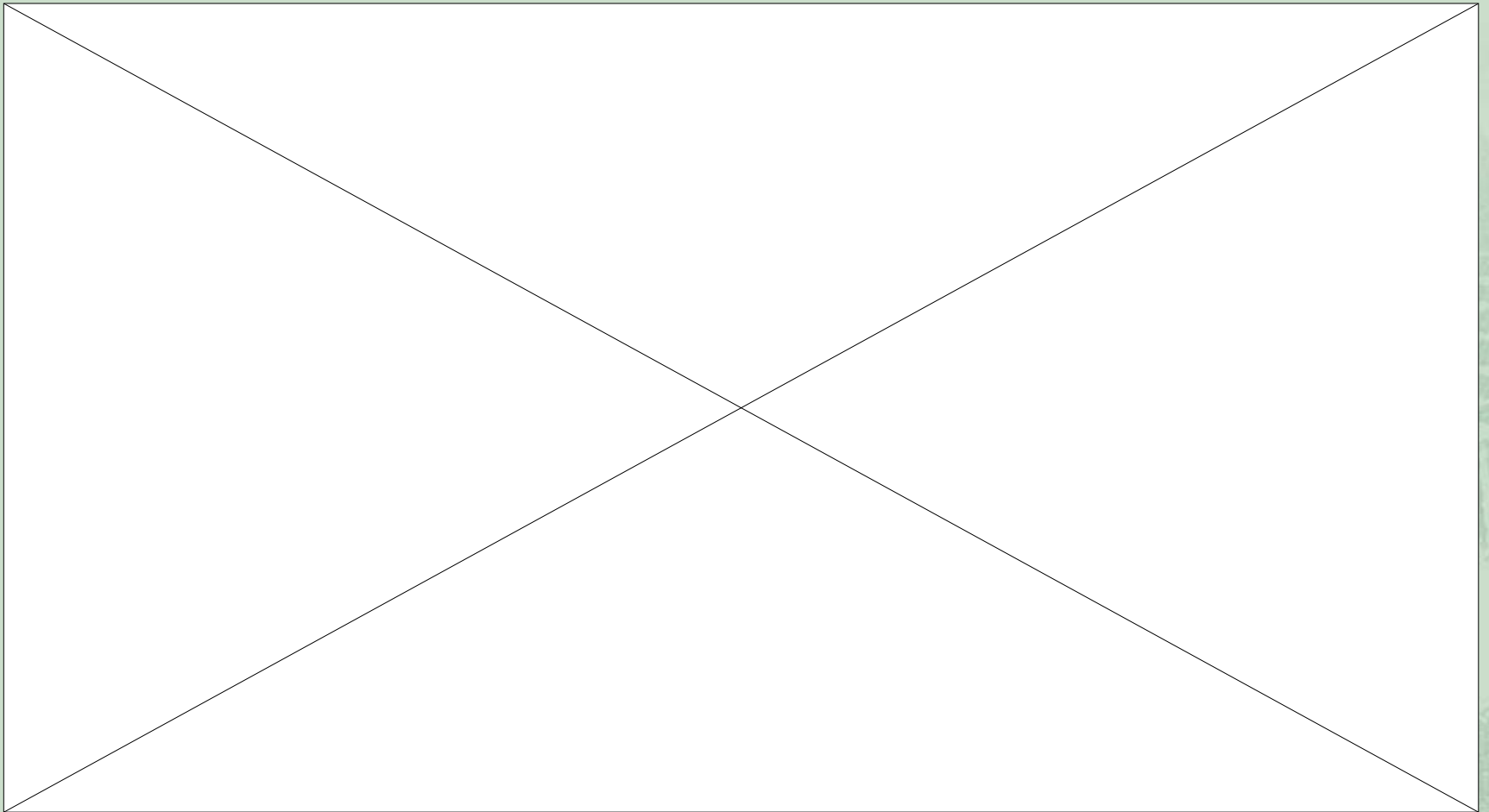


2. Emergency Measures

2.1 Tracing Up & Tracing Back

- Tracing will be conducted to determine the source and extent of infection.
- It must begin as soon as possible after HPAI is suspected.
- Movements of birds, products, people, vehicles and materials to and from the infected premise (IP) will be traced from at least 21 days before the first signs of disease until the imposition of full quarantine on the IP.
- The original source of the virus should be traced, as it could remain a source for more outbreaks.
- Because of the large number of movements of bird, products and service providers in the industry, the task of tracing will be time consuming, but it is very important.

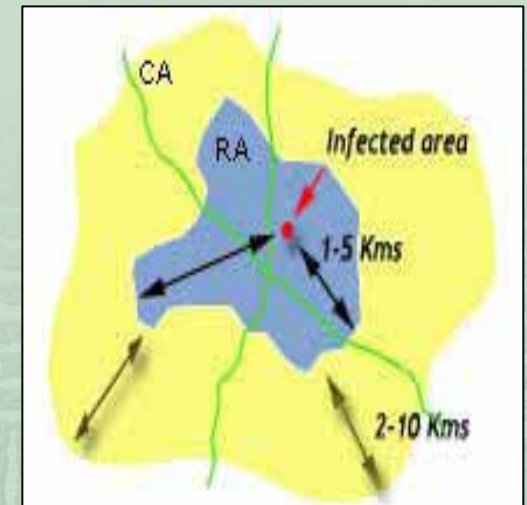
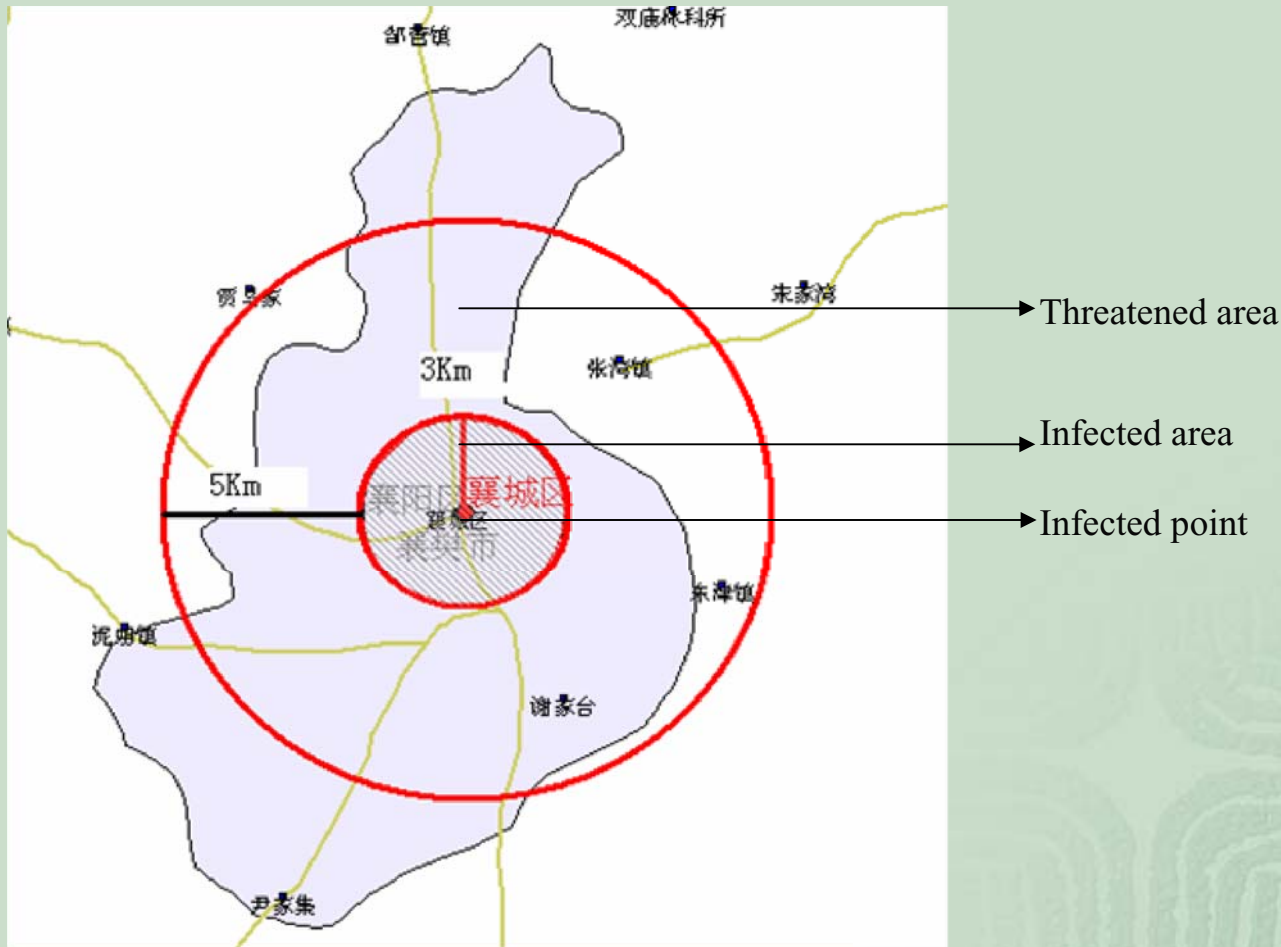
The lesson: In Oct. 2006, one outbreak occurred in Heishan county of Liaoning Province. As the movements of birds, eggs, feces, people, vehicles and materials could not be controlled in time, the disease diffused to 73 villages. About 20 million chickens were culled to eradicate the disease.



2.2 Zoning

- To meet international trading requirements and to ensure earlier access to markets from free zones, zoning could be introduced as soon as possible after the epidemiological tracing investigations.
- Poultry farms, slaughtering houses, markets and villages with confirmed cases of infection are identified as infected spots (IS).
- The area within 3-kilometer radius around the infected spot is identified as infected area (IA).
- The area within 5-kilometer radius around the infected area is identified as threatened area (TA).
- Those areas outside TAs will be the potential free zones.





The relevant factors for establishing zones including:

- ◆ Limits should be set on the basis of natural, artificial or legal boundaries;
- ◆ Documentation should be prepared using the guidelines defined by the OIE.

2.3 Stamping-out and Bio-safety disposal

- All poultries within infected spots (IS) and infected areas (The area within 3-kilometer radius around the infected spot, IA) should be killed in a bio-safety way.
- Carbon dioxide gas, cervical dislocation or other recommended measures could be used for poultry culling, but the means of poisoning is not recommended in China for human safety.
- Bio-safety disposal should be carried out towards all sick/dead poultry, culled poultry, their products and excretion, contaminated feed, beddings and sewerage within the infected spots and areas.
- Available technologies such as rendering, incineration, pyre burning, composting, burial, mounding, fermentation, et al. for Bio-safety disposal are described in OIE code.



Cervical Dislocation is the routine way for poultry killing in China.

<http://home.zbsz.net/poison>

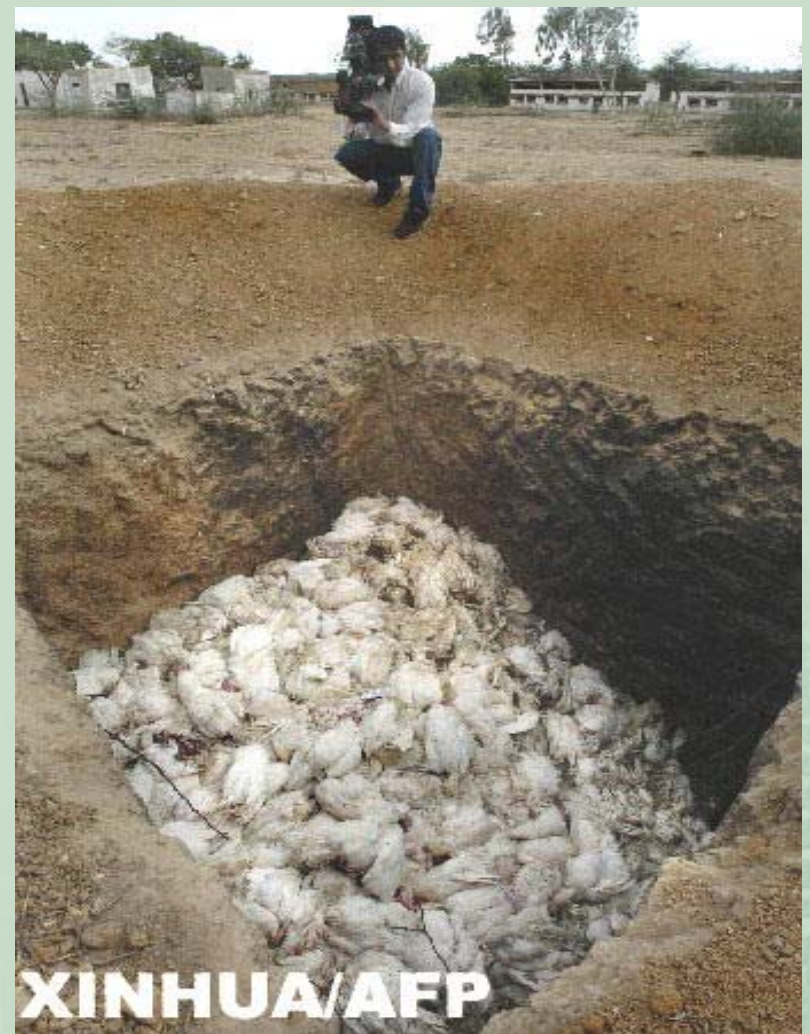


www.huolientao.net



The dead birds should be enclosed in sealed bags for transportation to avoid the leakage of the feces or body fluid.





- Mass burial is the routine way for carcasses disposal in China.
- The pit should be deep enough, AND the site of the pit should be away from the ground water, aquifers and residential area to avoid environmental pollution.



Pyre burning is usually used, but the side-effects of environmental pollution should be considered.





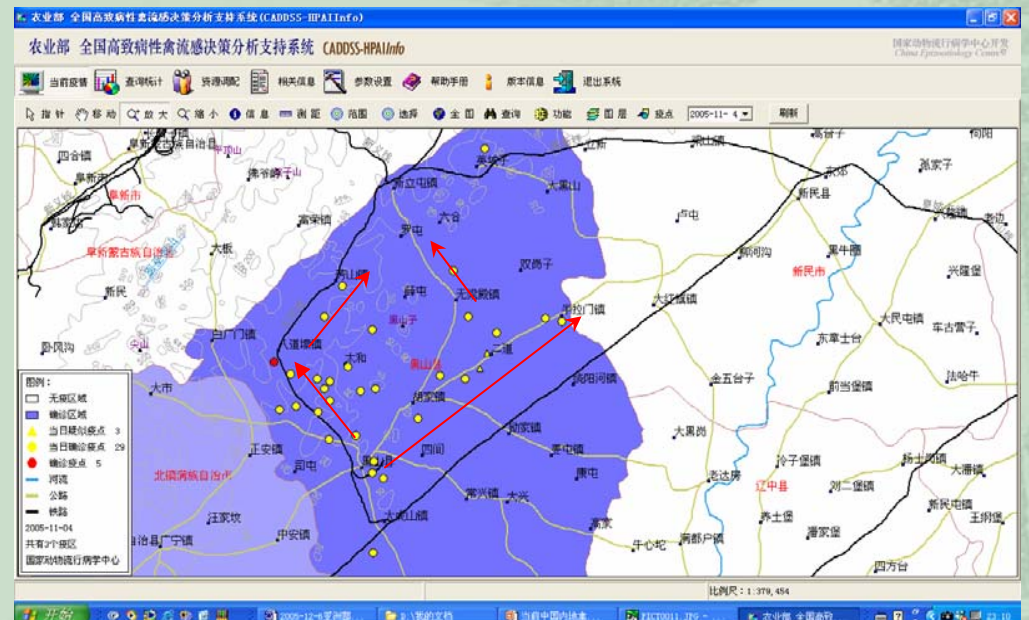
All contaminated items, transportation vehicles, utensils, poultry premises and grounds must be thoroughly cleaned and disinfected to inactivate possible existing pathogens.

Year	Provinces	Outbreaks	Numbers of Poultry(10,000)		
			Cases	Died	Slaughtered
2004	16	50	14.49	12.91	904.5
2005	12	31	15.82	15.46	2257.12
2006	7	10	9.1	4.7	298.52
2007	2	2	--	1.12	6.13
Total	22	93	41	31	3465

2.4 Movement Control

- The local people's government will issue the Blockade Order.
- Obvious warning signs must be set up around the infected areas (**area within 3-kilometer radius around the infected spot**)
- Animal quarantine and disinfection stations should be established at all traffic intersection.
- All susceptible poultry and their products are forbidden to be moved out, and personnel, vehicles and relative materials should be disinfected.

As the disease has the tendency of spreading along the roads, movement control is also very important!





The Animal quarantine & disinfection station should be on duty around the clock





And, all vehicles and relevant materials moving in and out infected areas should be subject to disinfection.

1.5 Emergent Vaccination & Effect Monitoring

- All susceptible birds within threatened areas are subject to emergency compulsory vaccination and complete vaccination records should be kept.





Chicken





Duck





Pigeon



- In order to make sure of the protective effect of vaccines, the antibody level to AIV HI should be tested 2-4 weeks post vaccination,
- If the rate of birds with qualified antibody titers is less than 70%, the flocks should be re-vaccinated so that a high and uniform antibody titers be maintained.



1.6 Closing the market

- All live birds and poultry products markets within 10-kilometer radius around the infected spots must be closed.





A pasted wall-map to introduce the villagers avoiding HPAI infection.



The personnel who have direct contact with birds during the process of handling HPAI epidemics will be well equipped with the protective overalls, goggles, disposable respirator, disposable gloves, and footwear.

Sometimes, the vaccine or antiviral drugs such as Tamiflu or Amantadine are recommended for them.





3. Blockade Lift & Poultry Production Recovering

3.1 Blockade lift

- If all poultry and poultry products have been treated according to relevant prescriptions and monitored for more than 21 consecutive days without detecting any new cases,
- the local government will lift the blockade order.



3.2 Poultry Production Recovering

- All culled birds will receive RMB 10Yuan per bird for compensation.
- Six months after the blockade lift, the farmers in the previous infected area could recover to breed poultry.



3.3 Support the Rehabilitation of Poultry Industry

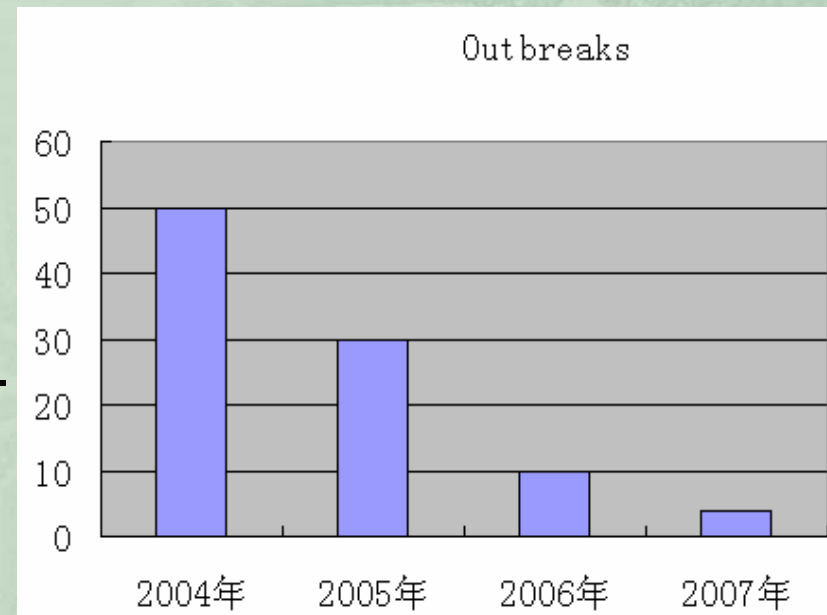
- In November 2005, the State Council decided to allocate 2 billion RMB to set up HPAI Prevention and Control Fund from the total budget reserve of the central finance.
- For poultry raising and processing enterprises and farmers, the government has decided to reduce or exempt some governmental funds and administrative charges, extend the repayment period for the loan of circulating funds, and deliver relative subsidies.





4. Closing Remarks

- With the integrated vaccination and stamping-out policy, the frequency of HPAI outbreaks showed a declining tendency in China. It indicates that the current policy is effective and should be adhered to.
- Following on the Action Program for Prevention and Control of HPAI and Other Major Animal Diseases, The capabilities of risk prevention, early warning, public awareness, and bio-safety control for HPAI, and the diseases control capabilities at grass-roots will be future improved in the future.
- Now, the undertaking of HPAI prevention and control in China is being transformed from the passive emergency disposal mode into an active prevention and control approach. The long-term effective mechanism for HPAI control is going to be established



*Thank you for your
attention!*

