Self-declaration of freedom from highly pathogenic avian influenza in poultry by Kazakhstan

Declaration sent to the OIE on 9 December 2018 by Dr. Tursyn Kabduldanov, OIE Delegate for Kazakhstan to the OIE, Ministry of Agriculture

I. Situation of highly pathogenic avian influenza

The objective of this Self-declaration is to declare freedom from Highly Pathogenic Avian Influenza (HPAI) in poultry, in accordance with the provisions of Article 10.4.4. of the OIE *Terrestrial Animal Health Code (Terrestrial Code)*. The Self-declaration covers the whole country and describes all outbreaks of HPAI reported from July 2005 to December 2018. Kazakhstan is claiming freedom of the country for the first time.

I.1. HPAI is notifiable to the Competent Authority at national level

Individuals and legal entities (including private veterinarians) according Article 25 of the Law "On veterinary" are obliged to report cases of death, simultaneous disease of several animals or their unusual behaviour. Before the arrival of specialists in the field of veterinary, state veterinary and sanitary inspectors take the necessary measures to isolate the HPAI suspected animals. This provision also applies to birds.

State bodies (keeping and using animals), state veterinary and sanitary inspectors at the border and transport have to inform the state veterinarian of the local authority on any suspicion or detection of HPAI.

Veterinarians of local authority are also obliged to report on suspicion or detection of HPAI to the Chief State Veterinarian and territorial units of the "Committee for veterinary control and supervision" (hereinafter – "CVCS"). (Please see Annex 1).

I.2.Description of the country's poultry industry

Poultry industry is one of the most important components of the agro-industrial complex of Kazakhstan. As of July 1, 2018, the number of birds in the country was 44,247,000 heads, of which 30,114,000 heads were registered at poultry farms of the Republic (Annex 2). The main directions of poultry production are eggs and meat.

Currently, there are 61 poultry farms engaged in the production of poultry products. A map of the location of existing poultry farms and their number is attached (Annex 3, Fig.1).

I.3. History of eradication of the HPAI in the country

Cases of HPAI in poultry

An outbreak of HPAI was registered on July 22, 2005 in the farm "Nan", located in the village Golubovka of Irtysh district of Pavlodar region in the Republic of Kazakhstan (Annex 3, Fig.2). The suspicion of avian influenza was raised on the observation of clinical signs. In the infected flock, there were 2,350 geese and 450 ducks, which were kept near a small lake, located two kilometres from the village. On July 27, 39 blood samples were taken from sick and suspected HPAI cases, and also from clinically healthy geese as well as pathological material from 2 dead domestic geese and 1 wild duck. Samples of blood serum of geese were tested for the presence of antibodies to avian influenza virus by ELISA in Pavlodar branch of Republican Veterinary Laboratory (further - RVL). A positive result for avian influenza was found in 38 geese. The diagnosis of HPAI was confirmed by the result of the isolation of the virus of avian influenza with antigen formula H5N1 in samples of pathological material from domestic and wild birds at the Scientific Research Agricultural Institute. The antigenic structure of the viruses isolated was identical to the virus isolated in the Novosibirsk region of Russia and in China. After the final diagnosis, all birds, 2,800 heads were killed and destroyed (disposal by burning). The farm was quarantined and restrictive measures were taken. The disinfecting points/stations were installed., The birds of all backyards were checked as well

Vaccines and vaccination

Kazakhstan has registered an inactivated emulsified monovalent vaccine against avian influenza (registered under: RK-VP-1-3413-17) for preventive immunization of backyard poultry (chickens, geese, ducks and turkeys). 4,945,300 heads of backyard poultry are annually vaccinated against avian influenza on high risk areas according to the migration routes of wild birds. Until early 2019, the vaccination of birds at commercial poultry enterprises ("closed type") was not applied, taking into account reinforced biosecurity measures and minimised contact between poultry and wild migratory birds. Starting from spring 2019, a new strategy on HPAI vaccination in Kazakhstan was adopted where the government is committed to fund the vaccination of 100% parent flock of the poultry enterprises located along the routes of the migrating wild birds, all flocks of backyards located in the 20-kilomentre zone distance from those poultry enterprises, as well as the poultry of backyards located in the areas of wild birds' migration, or risk zone.

The current highly productive vaccine strain is obtained on the basis of the H5N1 subtype (Clade 2.2) virus of highly pathogenic avian influenza which was isolated in the outbreak site of the disease in 2005 in Pavlodar region. Based on the analysis carried out, it can be concluded that the current composition of the vaccine is still relevant, and able to ensure the protection of birds from all varieties of the H5 subtype influenza virus.

HPAI in non-poultry including wild birds *for the period 2005-2018*

In 2006, 3 dead swans were found in Mangistau region (former - Mangyshlak) on the Caspian Sea coast (Annex 3, Fig.3). The diagnosis was made by the Institute of Microbiology and Virology and National reference center for veterinary (further- "NRCV").

In 2015, two dead wild birds were found in the territory of the State Natural Park in the Atyrau region (former- Guryev, Annex 3., Fig.4). NRSV carried out laboratory study by PCR and revealed the presence of avian influenza serotype H5. Further samples were sent to OIE Reference Laboratory on avian influenza, Istituto Zooprofilattico Sperimentale delle Venezie (Padova, Italy) where serotype H5N1was identified.

In 2017, two dead swans on the Caspian Sea coast of the Aktau city Mangystau region (Annex 3, Fig.5) were investigated for HPAI by PCR and classified as serotype H5N8. The studies were carried out in NRCV and in the Federal Service for Veterinary and Phytosanitary Surveillance (Rosselkhoznadzor) (ARRIAH). It should be noted that poultry farming in Mangystau and Atyrau regions is not developed.

II. Early detection and surveillance systems

A Memorandum regarding the provision of the reports on mortality of wild birds was signed between the "CVCS" and the Committee of Forestry and Hunting.

In total, there were 14 HPAI suspicions reported and 14 mortalities of birds; in 2016 (4), in 2017 (7) and in 2018 (3). In all cases, the testing was conducted regarding the major bird diseases, including infection with highly pathogenic influenza A viruses. The results were negative. The death among the wild birds occurred during the winter due to the drastic weather change.

Surveillance and early warning system for all relevant species in the country

Within the framework of the state order, surveillance of HPAI is carried out annually. Every year, according to the plan of veterinary diagnostic measures, diagnostic studies are carried out for HPAI by the ELISA and PCR methods among poultry of backyard located near of water bodies, where migratory birds live. Since 2015 and according to the state order, RSE Republican veterinary laboratory ("RVL") carried out annually 19,200 diagnostic tests by ELISA and PCR for HPAI. The criteria used for the sampling design is described in Annex 5.

As a part of the new HPAI vaccination strategy and the surveillance system, Kazakhstan has drawn up a plan of virological monitoring (started since 2019) in vaccinated populations in certain settlements within a radius of 20 km from poultry farms where vaccination is conducted. In this frame, cloacal and oropharyngeal flush samples are taken after 30 days after the date of vaccination, using PCR testing method capable to detect and differentiate influenza A virus subtypes H5 and H7.

Table 1. Information on the implementation of testing for HPAI diagnosis by "RVL" branches, Kazakhstan 2015-2018.

№	Name of the branch	2015		2016		2017		2018	
		ELISA, PCR		ELISA, PCR		ELISA, PCR		ELISA, PCR	
		plan for the year	tested	plan for the year	tested	plan for the year	tested	plan for the year	tested
1	Akmola	1050	1050	1050	1050	1032	1032	1050	1050
2	Central (Astana)	1370	1370	1370	1370	1360	1360	1370	1370
3	Aktobe	500	500	500	500	499	499	500	500
4	Almaty regional	625	625	625	625	620	620	620	620
5	Taldykorgan regional	655	655	655	655	650	650	660	660
6	Atyrau	0	0	0	0	0	0	0	0
7	East Kazakhstan	1611	1611	1511	1511	1610	1610	1496	1496
8	Semey regional	1345	1345	1445	1445	1556	1556	1460	1460
9	Zhambyl	1600	1600	1600	1600	1606	1606	1600	1600
10	West Kazakhstan	505	505	500	500	500	500	500	500
11	Karaganda	1840	1840	1840	1840	1840	1840	1840	1840
12	Zhezkazgan regional	580	580	580	580	580	580	580	580
13	Kyzylorda	473	473	473	473	473	473	473	473
14	Kostanay	1600	1600	1600	1600	1593	1593	1600	1600
15	Mangistau	0	0	0	0	0	0	0	0
16	Pavlodar	1033	1033	1033	1033	1036	1036	1033	1033
17	North Kazakhstan	2820	2820	2820	2820	2650	2650	2820	2820
18	South Kazakhstan	1598	1598	1598	1598	1600	1600	1598	1598
	TOTAL	**19205**	**19205**	**19200**	**19200**	**19205**	**19205**	**19200**	**19200**

According the monitoring studies, no positive samples for infection with of highly pathogenic influenza A viruses in poultry were found during the period 2005-2018.

HPAI surveillance in wild birds

"NRCV" carries out epizootic monitoring among the wild fauna on the territory of the Republic of Kazakhstan to prevent the spread of dangerous infectious diseases of animals, birds and humans. Epizootic monitoring of wild fauna is carried out on the reserve fund of hunting grounds, fixed hunting farms, specially protected natural areas, as well as in other areas inhabited by wild migratory birds.

Sampling is carried out according to the "Order of use of animals and birds, except rare and endangered species, in order to prevent epizootics".

Sampling targets:

1. killed animals (hunting trophies, forced shooting, accidentally killed birds).
2. the carcasses of birds dead from natural causes.
3. captured and seized live birds.

Each year, the following number of samples is taken to determine the prevalence of infection with highly pathogenic influenza A viruses in birds.

Table 2. Annual sampling schema for HPAI active surveillance in wild birds, Kazakhstan

Region	Average number	Target sample
Akmola	524,590	36
Aktobe	195,640	36
Almaty	148,355	36
Atyrau	236,912	36
East Kazakhstan	230,686	36
West Kazakhstan	55,117	36
Zhambyl	32,130	36
Karaganda	1,027,528	36
Kyzylorda	1,313,271	36
Kostanay	99,026	36
Mangistau	69,413	36
Pavlodar	238,692	36
North Kazakhstan	114,129	36
South Kazakhstan	84,594	36
Total	**4,370,082**	**504**

III. Measures to maintain freedom:

- Starting from spring 2019, a new strategy on HPAI vaccination in Kazakhstan was adopted where the government funds vaccination of 100% parent flock of the poultry enterprises located along the routes of the migrating wild birds, all flocks backyards located in the 20-kilomentre zone distance from those poultry enterprises, as well as the poultry of backyards located in the areas of wild birds' migration, or risk zone.
- Prevention and control of HPAI is carried out according to the approved order of the Minister of Agriculture of the Republic of Kazakhstan dated June 29, 2015 № 7-1 / 587 (Annex 2).
- According to the Law "On veterinary" matters, in case of detection of moved (transported) objects that pose a danger to the health and welfare of animals and humans, state veterinary sanitary inspectors and state veterinarians have the right to withdraw and destroy in the manner prescribed by the legislation of the Republic of Kazakhstan and take part in the organization of their neutralization (disinfection) or processing.
- The staff of the poultry farms are required to complete training on biosecurity on aspects of animal health and human health and safety of animal feed.
- Imposing a ban on the import of poultry and poultry products into the country from countries and zones that are not free from HPAI.
- All poultry farms in the Republic are "closed type" farms.
- Annual surveillance (serological and PCR).

- Recommendation to all economic entities engaged in poultry farming to create a zone free from birds within a radius of 5 (five) kilometres, to prohibit service personnel from keeping birds in private backyards;
- Raising public awareness of the disease through the media (newspapers, television, radio), distribution of specially designed memos, illustrated posters and leaflets.

IV. Conclusions

The OIE Delegate of Kazakhstan declares that the country complies with the requirements for a country free from infection with high pathogenicity avian influenza viruses in poultry (HPAI) as of 9 December 2018 in accordance with provisions of Chapters 1.6 and 10.4 (in particular, Article 10.4.4.) of the OIE *Terrestrial Code* and that the Self-declaration is consistent with the information provided in WAHIS.

V. Annexes

Annex 1.

Table 3. List and summary of veterinary legal provisions related to the HPAI

No.	Number of the document	Name of veterinary normative and legal acts	Summary	Links
1.	Law of RK of July 10, 2002	«On Veterinary»	The Law defines the main activities of the organization and carrying out of veterinary measures against especially dangerous diseases, including HPAI, as well as the procedure for monitoring, sources of funding, and the separation of functions between state veterinary organizations	http://adilet.zan.kz/rus/docs/Z020000339_
2.	Order of the MoA of the Republic of Kazakhstan dated 29.06.2015 № 7-1/587	"On approval of veterinary (veterinary and sanitary) rules»	These rules describe the procedure for carrying out veterinary measures for the prevention of highly pathogenic avian influenza, as well as the procedure for carrying out veterinary activities in epidemic foci and affected with HPAI	http://adilet.zan.kz/rus/docs/V1500011940 In the order article 77 (The procedure of veterinary measures for highly pathogenic avian influenza) item 814, in this document - Annex 4.
3.	Order of the MoA of October 30, 2014 № 7-1/559	"On approval of regulatory legal acts in the field of veterinary", which approved the following regulatory legal acts:	-HPAI is included in the List of especially dangerous diseases of animals at which compulsory withdrawal and destruction of animals, production and raw materials of animal origin that are dangerous for the health of animals and humans -HPAI is included in the List of especially, dangerous animal diseases, prevention, diagnosis and elimination of which is carried out at the expense of budget funds. - Reimbursement of the cost of seizure and destruction, as well as the procedure for payment of amounts for compensation to individuals and legal entities	http://adilet.zan.kz/rus/docs/V14F0009891#z26 1. Annex 4 List of particularly dangerous animal diseases, in which mandatory removal and destruction of animals, products and raw materials of animal origin, which are dangerous for animal and human health. (#7) 2. Annex 5 List particularly dangerous animal diseases, prevention, diagnosis and liquidation is carried out at the expense of budgetary funds (#7). 1. Annex 2 Regulation of mandatory removal and destruction of animals, products and raw materials of animal origin, which are dangerous for

				animal health and humans health, or mandatory neutralization (decontamination) and processing without exception. Paragraph 2 - The procedure for mandatory removal and destruction of animals, products and raw materials of animal origin, representing danger to animal and human health
4.	Order of the MoA No. 767 from December 31, 2009	"On Approval of the Rules of dividing the territory into zones"	Regulates the division of the territory into zones in the event of particularly dangerous animal diseases, including HPAI	http://adilet.zan.kz/rus/docs/V090006027_
5.	Order of the Ministry of Agriculture № 18-03 / 128 of 28 March 2012	"On approval of lists of infectious diseases of animals and where the restrictive measures or quarantine";	HPAI is included in the list of diseases for which quarantine is established	http://adilet.zan.kz/rus/docs/V1200007583 Annex 1. List of infectious animal diseases in which quarantine is established
6.	Order of the MoA of RK No.7-1/86 from 9 February 2015	"On approval of Regulations on imposing and lifting restriction measures and quarantine"	Defines procedure for imposing and lifting restriction measures and quarantine	http://adilet.zan.kz/rus/docs/V1500010414 Order of the MoA of RK No.7-1/86 from 9 February 2015
7.	Order of the Chair of CoVCS MoA RK No. 200 from 29 December 2012	"On approval of Procedure on immediate reporting and actions in case of suspicion or occurrence of highly dangerous diseases of farm and wild animals, and birds"		No link to Order of the Chair of CoVCS MoA RK

MoA - Minister of agriculture of the Republic of Kazakhstan

Annex 2.

Table 4. Information on the availability of poultry by region (*Source: Committee on statistics of the Republic of Kazakhstan http://stat.gov.kz*)

Region	All categories of farms		Among them					
			Agricultural enterprise		Individual entrepreneurs and farms		Backyard	
	2018	2017	2018	2017	2018	2017	2018	2017
Kazakhstan	44 247 859	41 782 607	30 114 491	27 158 454	442 364	411 686	13 691 004	14 212 467
Akmola	6 432 346	5 588 012	5 296 520	4 353 766	6 832	5 377	1 128 994	1 228 869
Aktobe	1 477 267	1 465 349	712 043	718 609	6 367	6 141	758 857	740 599
Almaty	10 259 384	9 868 700	8 731 312	8 053 606	104 104	143 381	1 423 968	1 671 713
Atyrau	527 215	343 282	496 150	312 228	3 172	3 092	27 893	27 962
West Kazakhstan	1 455 256	967 797	984 453	543 098	37 853	31 711	432 950	392 988
Zhambyl	1 403 402	1 422 728	527 677	616 142	40 602	29 622	835 123	776 964
Karaganda	4 053 710	3 906 121	3 264 839	3 045 670	85 970	56 833	702 901	803 618
Kostanay	4 257 266	4 283 906	1 985 757	1 931 037	15 488	10 452	2 256 021	2 342 417
Kyzylorda	129 536	95 218	32 500	10 600	6 040	2 930	90 996	81 688
Mangistau	51 747	28 949	40 061	20 500	2 698	1 902	8 988	6 547
Turkestan	1 766 893	1 552 820	668 643	565 241	42 465	31 482	1 055 785	956 097
Pavlodar	1 520 956	1 406 700	932 573	839 766	20 149	28 896	568 234	538 038
North Kazakhstan	5 622 598	5 445 918	2 814 344	2 422 724	33 140	37 591	2 775 114	2 985 603
East Kazakhstan	4 358 146	4 607 467	2 840 366	3 068 093	35 439	22 276	1 482 341	1 517 098
Astana city	1 560	726	-	-	-	-	1 560	726
Almaty city	5 478	5 761	-	-	-	-	5 478	5 761
Shymkent sity	925 099	793 153	787 253	657 374	2 045	-	135 801	135 779

Annex 3.

Fig.1. Map of the number and location of existing poultry farms, Kazakhstan

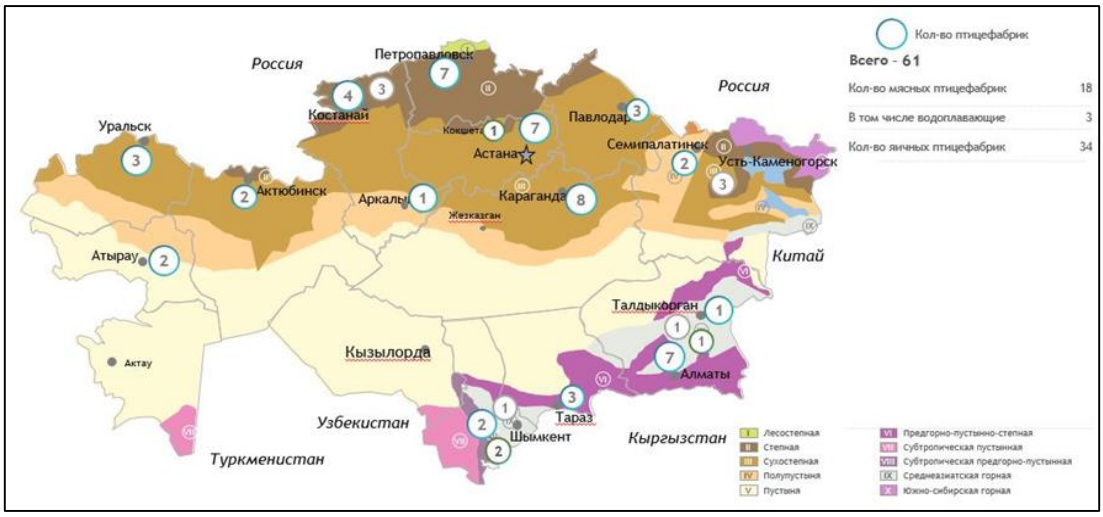


Fig.2. Outbreak of HPAI in the village Golubovka Pavlodar region, Kazakhstan, 2005

Fig.3. Outbreak of HPAI of wild birds in Mangistau region (former - Mangyshlak), Kazakhstan, 2006

Fig.4. Outbreak of infection with influenza A viruses of high pathogenicity in birds other than poultry including wild birds in Atyrau region (former- GurYev), Kazakhstan, 2015

Fig.5. Outbreak of infection with influenza A viruses of high pathogenicity in birds other than poultry including wild birds in Mangistau region (former - Mangyshlak), Kazakhstan, 2017

Annex 4. Veterinary (veterinary-sanitary) regulations approved by order of the Minister of Agriculture of the Republic of Kazakhstan dated June 29, 2015 No. 7-1 / 587

Article 77**.** The procedure of veterinary measures for highly pathogenic avian influenza

Paragraph 1. The procedure of veterinary measures for the prevention of highly pathogenic avian influenza

814. In the event of the risk of importation of highly pathogenic influenza, in order to prevent the importation and spreading of pathogen the authorized veterinary authority shall take appropriate anti-epizootic measures, according to which:

1) restrictions are imposed on the import (input) of poultry and poultry products from the territories of affected states;
2) hunting for wild and migratory birds is regulated (terms of hunting for wild birds is under regulation, the number of birds being shot is increased in order to rarefy its populations and to reduce the frequency of contacts with domestic birds);
3) territories of high risk of the initial disease manifestation are outlined, individuals and legal entities own a bird are notified of the restrictions imposed.

815. Individuals who have a bird in their farm (farmstead) must strictly observe the following requirements:

1) birds housed outdoors should be protected from contact with wild migratory birds (especially waterfowl and shorebirds;
2) if necessary, poultry in the farmsteads should be transferred to the sheltered enclosure;
3) promptly notify the veterinary and sanitary inspector of the relevant administrative and territorial unit about the cases of birds' diseases and loss;
4) do not allow birds grazing beside lakes with wild birds within a radius of up to 5 kilometres.

816. Legal entities own birds must strictly observe the following measures:

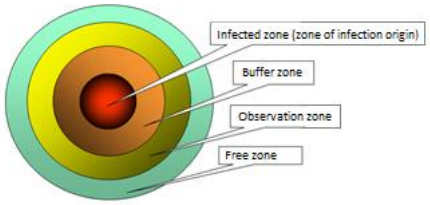
1) exclude the contact with wild birds, especially waterfowl;
2) create a zone within a radius of 5 (five) kilometres free of birds;
3) if necessary, poultry should be transferred to the sheltered enclosure;
4) importation and transportation of birds from disease-free farms that is confirmed by relevant veterinary documents;
5) keep clean the farm and shelters, disinfect if necessary;
6) comply with the technology of poultry breeding and maintenance;
7) in cases of disease and death of a bird, promptly notify the veterinary and sanitary inspector of the relevant administrative and territorial unit;
8) prevent the sharing of birds with different species of animals, especially pigs.

Paragraph 2. The procedure of veterinary measures in epizootic centres and areas affected by highly pathogenic avian influenza

817. Upon the diagnosis verification on the territories of an economic the quarantine is established.

818. The area of disease detection and adjacent territories is subdivided on zones according to distance to disease centre and presence of virus transfer factors:

1) Infected zone (zone of infection origin) – area of disease registration and adjacent territory with a radius of at least 8 (eight) kilometres;
2) buffer zone - the territory (external) covering the area within a radius at least 25 (twenty-five) kilometres around the area of disease detection (zone of infection origin)
3) observation zone - the territory (outer) covering area within a radius of 50 (fifty) kilometres around the border of the threatened zone.



819. In the zone of the origin of infection, the measures are being taken to destroy the pathogen of highly pathogenic avian influenza and prevent its further spreading. For this purpose, in economic entities, settlements

the destruction of all poultry (corpses, sick, conditionally healthy and healthy), regardless of their type and age is carried out by burning.

Places of contamination and possible virus contamination (poultry-yards, yards, places of slaughter, transportation, disposal) are disinfected with disinfectants registered in the Republic of Kazakhstan and (or) states members of the Eurasian Economic Union

The export (withdrawal) of poultry and poultry products from the zone of infection origin is completely ceased. Veterinary-sanitary (quarantine) posts are organized on the border of the zone of infection. If necessary, movement and transportation of all species of animals out of zone into external territories is ceased completely.

820. In the buffer zone, restrictive measures and strict veterinary control over the birds' health are introduced. The bird is transferred to sheltered enclosure strictly. All contacts with wild birds are excluded.

821. In the observation zone, strict veterinary monitoring of the birds' health status is realized. The bird is transferred to sheltered enclosure strictly. All contacts with wild birds are excluded.

822. The quarantine from the economic entity is removed 21 days after the destruction of the last corpse of bird fell from the influenza or with suspicion for influenza and realization of final disinfection.

Annex 5.

Surveillance for HPAI in poultry in the Republic of Kazakhstan

The criteria used for surveillance were as follows:
1) the number of birds in backyard (households);
2) number of poultries in small farms (Individual entrepreneurs and farms);
3) number of large water reservoirs (with an area of more than 50 -100 km^2)

There are 14 regions and 3 cities of national importance in Kazakhstan.
Information on the availability of poultry by region the self-declaration is presented in table 4 of (Annex).
Table 1. Information on the availability of poultry by region (Regions are located in increasing numbers of poultry in backyard).

Region	Backyard	Individual entrepreneurs and farms	Agricultural enterprise
Astana city	1 560	-	-
Almaty city	5 478	-	-
Mangistau	8 988	2 698	40 061
Atyrau	27 893	3 172	496 150
Kyzylorda	90 996	6 040	32 500
Shymkent sity	135 801	2 045	787 253
West Kazakhstan	432 950	37 853	984 453
Pavlodar	568 234	20 149	932 573
Karaganda	702 901	85 970	3 264 839
Aktobe	758 857	6 367	712 043
Zhambyl	835 123	40 602	527 677
Turkestan	1 055 785	42 465	668 643
Akmola	1 128 994	6 832	5 296 520
Almaty	1 423 968	104 104	8 731 312
East Kazakhstan	1 482 341	35 439	2 840 366
Kostanay	2 256 021	15 488	1 985 757
North Kazakhstan	2 775 114	33 140	2 814 344

As can be seen from table 1 in all 14 regions and 3 cities of national importance contains a bird in backyard. The presence of poultry in Shymkent city in individual entrepreneurs and farms is explained by the expansion of the city area due to the addition of nearby settlements.

By the number of poultry in backyard. As can be seen from the table, in the cities of national importance (Astana, Almaty and Shymkent) contain poultry, but due to the small number and lack of large water reservoirs sampling is not carried out under surveillance.

The largest number of birds in backyard is in North Kazakhstan and Kostanay regions (more than 2 million), more than 1 million birds in backyard in Turkestan, Akmola, Almaty and East Kazakhstan regions. In the other 6 regions the number of birds in backyard varies from 90 thousand to 835 thousand birds.

Low number of birds of backyard in Mangistau and Atyrau regions (8988 and 27893 birds, respectively).

The number of birds in individual entrepreneurs and farms.

Table 2. Information on the availability of poultry by region at individual entrepreneurs and farms by region (Regions are located in increasing numbers of poultry at individual entrepreneurs and farms).

Наименование области	Индивидуальные предприниматели и крестьянские или фермерские хозяйства
Astana city	-
Almaty city	-
Shymkent sity	2 045
Mangistau	2 698
Atyrau	3 172
Kyzylorda	6 040
Aktobe	6 367
Akmola	6 832
Kostanay	15 488
Pavlodar	20 149
North Kazakhstan	33 140
East Kazakhstan	35 439
West Kazakhstan	37 853
Zhambyl	40 602
Turkestan	42 465
Karaganda	85 970
Almaty	104 104

As can be seen from table 2, the largest number of poultry in small farms is contained in Karaganda and Almaty regions (over 80 thousand), 15-40 thousand poultry in small farms of Kostanay, Pavlodar, North Kazakhstan, East Kazakhstan, West Kazakhstan, Zhambyl and Turkestan regions.
6-7 thousand poultry are kept in small farms of Kyzylorda, Aktobe and Akmola regions.
The smallest number of poultry in small farms in Mangistau and Atyrau regions, surveillance in poultry in these regions is not carried out.

By the number of poultry in agricultural enterprises.
In large commercial "closed-type" poultry farms, biosafety measures are strictly observed and contacts between poultry and wild migratory birds are minimized. Due to the existing biosafety measures, the number of poultry farms or birds in poultry farms is not a criterion for selection under surveillance. In general, the largest number of poultry farms is located in Almaty (12), Akmola (9) and Karaganda (8) regions.

The basis of epizootological monitoring of avian influenza in natural conditions is the annual surveillance of water and near-water biocenotic complexes. The search for the pathogen of avian influenza is carried out, first of all, in the near-water biotopes located in the places of concentration and nesting, and along the seasonal flyways of birds belonging to certain groups.

Table 3. The number of large water reservoirs (with an area of more than 50 -100 km2) in the context of the regions of Kazakhstan.

Name of region	Water reservoirs with an area of more than 50 km^2	Water reservoirs with an area of more than 100 km^2	Note
Akmola	Kalibek Karasor Iteimen Kalmakkol	Tengiz Korgalzhyn	
Aktobe		Aral sea	
Almaty		Balkhash Alakol Sasykkol Uyaly	
Atyrau	Zhaltyr	Caspian sea Inder	Surveillance is carried out only among wild birds
West Kazakhstan		Shalkar Aralsor	
Zhambyl	Biylekol Ashikol Akkol	Balkhash	
Karaganda	Karakoin	Balkhash Karasor	
Kostanay	Koibagar Teniz Akkol Zharman Tontyger	Kusmuryn Sarykopa	
Kyzylorda	Ashikol Zhaksykylysh	Aral sea small Aral sea Kamystybas	The Aral sea is shrinking, very salty. The small Aral sea is the Northern part of the sea.
Mangistau		Caspian sea	Surveillance is carried out only among wild birds
Turkestan			
Pavlodar	Shureksor Big Azhbulat Maraldy	Kyzylkak Zhalauly	
North Kazakhstan	Kak	Seletyteniz Shagalaly-teniz Ulken-Karoy Teke Kishi-Karaoy	
East Kazakhstan		Alakol Zaisan Sasykkol Markakol Uyaly	
Astana city			
Almaty city			
Shymkent sity			

As can be seen from table 3, the largest number of large water reservoirs with an area of more than 100 km^2 (more than 4) are in North Kazakhstan and East Kazakhstan. Some water reservoirs are located on the territory of 2-3 regions (Caspian sea, Balkhash, Aral sea, Alakol, Sasykkol, Uyaly).Researches of the selected samples among poultry are carried out by the staff of RSU "Republican veterinary laboratory" of the corresponding region. Sampling for surveillance is carried out in 14 regions, research is carried out in 18 laboratories, in 4 regions research is carried out in 2 branches (in Akmola region – in Akmola and Central branches, in Almaty region – in Almaty and Taldykorgan branches, in East Kazakhstan region - East Kazakhstan and Semey branches, in Karaganda region – in Karaganda and Zhezkazgan branches).

Table 4. Information on the implementation of testing for HPAI diagnosis by "RVL" branches, Kazakhstan 2015-2018 (table 1 in self-declaration)

№	Name of the branch	Corresponding region	2015		2016		2017		2018		2018
			ELISA, PCR		ELISA, PCR		ELISA, PCR		ELISA, PCR		ELISA, PCR
			plan for the year	tested	plan for the year	tested	plan for the year	tested	plan for the year	tested	Total number of samples
1	Akmola	Akmola	1050	1050	1050	1050	1032	1032	1050	1050	2420
2	Central (Astana)		1370	1370	1370	1370	1360	1360	1370	1370	
3	Aktobe		500	500	500	500	499	499	500	500	500
4	Almaty regional	Almaty	625	625	625	625	620	620	620	620	1280
5	Taldykorgan regional		655	655	655	655	650	650	660	660	
6	Atyrau		0	0	0	0	0	0	0	0	0
7	East Kazakhstan	East Kazakhstan	1611	1611	1511	1511	1610	1610	1496	1496	2956
8	Semey regional		1345	1345	1445	1445	1556	1556	1460	1460	
9	Zhambyl		1600	1600	1600	1600	1606	1606	1600	1600	1600
10	West Kazakhstan		505	505	500	500	500	500	500	500	500
11	Karaganda	Karaganda	1840	1840	1840	1840	1840	1840	1840	1840	2420
12	Zhezkazgan regional		580	580	580	580	580	580	580	580	
13	Kyzylorda		473	473	473	473	473	473	473	473	473
14	Kostanay		1600	1600	1600	1600	1593	1593	1600	1600	1600
15	Mangistau		0	0	0	0	0	0	0	0	0
16	Pavlodar		1033	1033	1033	1033	1036	1036	1033	1033	1033
17	North Kazakhstan		2820	2820	2820	2820	2650	2650	2820	2820	2820
18	South Kazakhstan		1598	1598	1598	1598	1600	1600	1598	1598	1598
	TOTAL:		19205	19205	19200	19200	19205	19205	19200	19200	19200

As can be seen from table 4, the largest number of samples is studied in East Kazakhstan region and North Kazakhstan region. The regions can be divided into 4 groups according to the number of samples studied:
1.East Kazakhstan region, North Kazakhstan region – 2956 and 2820 samples respectively;
2.Akmola and Karaganda regions - 2420 samples;
3.Pavlodar, Almaty, South Kazakhstan region, Zhambyl and Kostanay regions - 1033-1600 samples;
4. Kyzylorda, Aktobe and West Kazakhstan region – 473-500 samples.
In Atyrau and Mangistau regions poultry samples are not taken and are not investigated.
Surveillance in wild birds is carried out annually by the staff of RSE "National reference center for veterinary ".

Table 5. Number of annual sampling for active surveillance of HPAI in wild birds in the Republic of Kazakhstan

Name of region	Average number	Plan to withdraw	Special attention is paid to the collection of materials in the following places
Akmola	524590	36	Korgalzhyn state nature reserve, which has wetlands
Aktobe	195640	36	
Almaty	148355	36	The Ile-Balkhash natural complex Alakol-Sasykkol lake system
Atyrau	236912	36	Delta of the Ural river, the Caspian sea basin – places of flight, migratory accumulations and nesting of migratory birds.
East Kazakhstan	230686	36	Alakol-Sasykkol lake system
West Kazakhstan	55117	36	Delta of the Ural river - the intersection of several migration routes
Zhambyl	32130	36	The Ile-Balkhash natural complex
Karaganda	1027528	36	The Ile-Balkhash natural complex
Kyzylorda	1313271	36	
Kostanay	99026	36	
Mangistau	69413	36	Caspian sea basin
Pavlodar	238692	36	
North Kazakhstan	114129	36	Wetlands, the place of crossing of the two most important migration routes of birds (Central Asian and Siberian-South European)
South Kazakhstan	84594	36	
Total	**4370082**	**504**	

Annex 6.

I, the undersigned, Dr. Tursyn Kabduldanov, Delegate of Kazakhstan to the World Organisation for Animal Health (OIE), take responsibility for the self-declaration of freedom from Highly Pathogenic Avian Influenza.

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Drawn up on 09/12/2018

Dr. Tursyn Kabduldanov,
Delegate of Kazakhstan to OIE