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Self-declaration of freedom from Highly pathogenic avian influenza in poultry compartments in Egypt

Declaration sent to the OIE on 16 September 2018 and last updated on 7 March 2021 by Dr. Abdelhakim Mahmoud Mohamed Ali, OIE Delegate for Egypt, Chief Researcher, CVO and Chairman General Organization for Veterinary Services (GOVS) (Annex1)[1]

1. Introduction

According to the current epidemiological situation of HPAI in Egypt, it is difficult in the next few years to easily reach the eradication of the disease. Therefore, the adoption of the system of compartmentalisation in accordance with OIE provisions is an important tool to restore external marketing opportunities for some Egyptian companies taking into consideration the revised national strategy and governmental policies for the continuous control of HPAI disease in Egypt and also this is an important step to reduce the negative impact of the disease on the exports.

Poultry production in Egypt can be broken down in four different types of systems:

- Major companies – meat type grandparent flocks and meat and egg-type parent flocks
- Large scale farms – production of broiler parent chicks and commercial table eggs
- Low-capacity farms – including 74% of broiler production
- Rural production – Mostly for subsistence and some level of commercialization (Hosny, 2006[2]; Anon,2007)

The poultry industry in Egypt is interested in re-establishing the export of day-old-chicks (DOC) and hatching eggs, which prior the introduction of HPAI had an estimated value of 6.8 million USD per year (Hosny, 2006). Under the current conditions of poultry production in Egypt and taking into consideration the epidemiological situation of HPAI in the country, only the top tier of genetic stock producers would likely comply with the biosecurity requirements (Annex 2) expected by the international community for the establishment of compartments. The General Organization for Veterinary Services (GOVS) and the

[1] This self-declaration of HPAI freedom in poultry compartments is an update of the self-declaration published on 21 May 2018 with regard to the inclusion of additional compartments.
[2] Hosny, 2006.http://www.fao.org/docs/eims/upload/228579/poultrysector_egy_en.pdf.

National Laboratory for Veterinary Quality Control on Poultry Production (NLQP) have initiated a program for compartmentalisation (Annex 3).

The GOVS started the implementation of the compartmentalisation program (the program) in 1/12/2012 when a meeting took place with the major poultry companies, explaining the program, its objectives and implementation plan. To date, there are 11 companies involving 26 compartments and 4 slaughterhouses registered with the program (Annex 4. A and 4. B). In order to be accepted into the program, a farm is subjected to a basic biosecurity assessment and a program of regular testing is implemented. The specific details are described under the relevant sections below. The official veterinary service has the authority with full responsibility to register, audit and certify the compartments.

2. Prerequisites for establishment of compartments free from HPAI

1. Implement an effective and rigorous biosecurity system.
2. Good training for all stakeholders, both those working in poultry and government agencies, and working in the system of compartmentalisation.
3. The government's authorized organization concerned should adopt a system of surveillance, follow-up and rapid diagnosis in order to prevent the spread of the disease and improve control measures.
4. Strong attention to the following procedures:
    a) Surveillance and monitoring, field follow-up, rapid reporting, rapid response, and post-vaccination monitoring, in accordance with the regulations and policies governing the overall strategy of continuous disease control in Egypt.
    b) Application of a continuous and systematic survey and surveillance system for the clinical, serological and viral examination of birds within the compartment as well as surrounding birds (backyards, live markets, waterfowls, wild birds and any other source of disease).
    c) In the case of a suspicion, laboratory tests are used to confirm field observations.
    d) Any specimen of suspected birds should be considered as infected until proved otherwise by a laboratory test; the identification of the suspected flocks is important and vital to identify the source of infection and to complete the rest of the tests to study the genetic and biological characteristics of isolated viruses.
    e) The surveillance program should be based on the epidemiological status of the disease and should be planned in accordance with the national strategy to combat avian influenza in Egypt and the diagnostic methods used to confirm the absence of the HPAI virus within 12 months in exposed birds.
    f) Repeat sampling rates and monitoring should be at least 21 days for 12 months for birds within the compartment.
    g) Vaccination within the compartment should be subject to the regulations and vaccination policy adopted in Egypt.
    h) The virological and serological tests should be carried out to ensure that they are free from the virus.
    i) In order to confirm the absence of avian influenza in compartments, there is a need for evidence of the absence of avian influenza viruses in these compartments, which should be undergo to random tests using virus detection, isolation and serological methods, following the general conditions of OIE provisions. The survey should be continued for 12 continuous months and the results are all negative with the confirmation of sending samples to the relevant laboratory, which is National Laboratory for Veterinary Quality Control on Poultry Production (NLQP).

j) In the case of the recurrence of infected case, the affected HPAI free compartments lose immediately the freedom from HPAI virus. Targeted survey shall be conducted over the affected area for three months after the culling of the infected birds, good cleaning and disinfection of the area and increased biosecurity measures in the compartment to confirm the absence of infection on the farm (taking in consideration the absence of any new cases during this period) and then an active survey of the disease again for 12 consecutive months to declare the region free of disease, noting that the continuity of the survey and repeat tests must be based on the seriousness of infection and the longest period between tests is 21days.

k) In the case of confirmation of highly pathogenic avian influenza, all the procedures should be followed in such a case like the hygienic disposal of the infected flocks and the applying the cleaning and disinfection procedures and never restocking before three months and then start to taking other samples after 3 months for another year (12 months) to prove that the facility is free again and then give a certificate of the site free from highly pathogenic avian influenza.

This prerequisites are in line with Chapters 1.1. and 3.1. of the *Terrestrial Code* on notification and quality of veterinary services, respectively. For additional details on the performance of veterinary services please see Annex 5.

3. Implementation plan of compartmentalisation

The Compartments must meet the following requirements:

1. Facilities (poultry farm) has not been reported for HPAI disease
2. Free areas of domestic birds. (Map, Annex 4. C)
3. Facilities (poultry farms) should have an integrated administrative and technical system with records of all activities within the farm and apply all the requirements of biosecurity and biosafety in detail (Annex 2).
4. Farmers and companies should comply with all laws, regulations and provisions for the HPAI disease issued by the concerned governmental authorities (Annex 3).
5. Commitment to transparency, especially in cooperation with the authorities concerned with the examination, sampling and rapid reporting of cases.
6. Full compliance with the directives issued by the follow-up committees (General Organization for Veterinary Services and National Laboratory for Veterinary Quality Control on Poultry Production (NLQP).
7. Companies and farms should be obliged to notify the concerned parties of the flock movement from and to the area in advance.

a. Infrastructural factors

Biosecurity requirements are among the most important steps to prevent the disease, all companies participated in the compartmentalisation program were visited to observe the infrastructure and discuss the overall biosecurity plan with the technical managers. All companies are with very high biosecurity standards located in a fenced agricultural compound of several kilometres. Companies' themselves are completely fenced with restricted access. Each farm inside the company has a dedicated crew of workers that live on the farm for periods of 20 days.

b. Laboratory Procedures

The National Laboratory for Veterinary Quality Control on Poultry Production undertakes the necessary tests for the application of the laboratory examination program (Annex 2) depending on the type of birds and immunization status (immunized or non-immunized).

The National Laboratory undertakes a training program for all participants and employees within the system at the central laboratory.

c. Monitoring and follow-up system:

- Applying of the epidemiological Survey Program (sampling rate every 21 days). The samples are taken by the company, laboratory vets or GOVS vets, with full compliance with the sampling protocols required for the laboratory examination (Annex 6).

- Field visits are carried out by the concerned officials (General Organization for Veterinary Services and National Laboratory for Veterinary Quality Control on Poultry Production (NLQP). The company visited is either prior informed or not.

d. Movement control

For all farms inside the compartments, a sample (tracheal swabs and blood samples) is taken before slaughtering, transporting or selling to ensure that they are free of the avian influenza virus. No movement of birds is allowed until the results are negative for HPAI and the companies take a transportation statement for each batch.

Documentation of factors critical to definition of a compartment

Documentation of all processes related to the compartment is the basis for transparency and will facilitate international recognition. GOVS follow up all records for each farm during visits about mortality levels, feed consumption, hatchability percentage, age and overall health of the flock (medication and vaccination). Farms are regularly tested; test results from registered farms are recorded and available.

Vaccine against HPAI is routinely practiced using homologous (H5N1) or heterologous (H5N2, H5N3) vaccines and is manufactured under international OIE standards. All vaccines either locally produced or imported should be treated by the same procedures in the sampling process from different vaccine batches for evaluation. GOVS, NLQP and CLEVB should periodically monitor the genetic and antigenic changes in the new virus isolates and update the challenge strain when necessary. The companies have the freedom to choose the type of vaccine (N1 or N2 or other) to use.

4. Surveillance for HPAI disease

In accordance with the OIE provisions, the companies are monitored to ensure that they are free of infection with the virus. In this regard, document review is initially performed for each applicant compartment and then all farms are inspected according to the following plan: Firstly, clinical inspection and sampling for HPAI testing of the flocks and secondly, an assessment of biosecurity requirements in the first visit. Biosecurity compliance is verified during routine visits (Annex 2).

Epidemiological survey is an important element in the control and eradication of avian influenza in Egypt. The policy for H5N1 avian influenza surveillance is based on the intensive survey of the various production flocks (commercial production) of birds as well as the regulations for the marketing and transport of these birds.

The objectives of the policy are: a) study the extent of the spread of the HPAI disease within poultry farms and backyards in Egypt. b) warning and early detection of highly pathogenic avian influenza.

A. Epidemiological Surveillance Policies:

1 Active surveillance: is implemented in high-risk governorates according to recorded cases during the last years. This is done through joined GOVS and NLQP dedicated teams.

2 Targeted surveillance: A Targeted Risk-based Avian Influenza Surveillance Plan has been implemented as an early warning measure as follows:

- Targeted risk-based AI surveillance in LBMs
- Targeted surveillance in commercial farms around outbreaks
- Targeted surveillance at domestic-wild/migratory bird interface.

These activities are to address all circulating AI sub-types (H_5N_1, H_5N_8 and H_9N_2) at a risk-based approach and maintaining early warning for incursion of any other emerging subtypes that were reported in other countries (H_7N_9, H_5N_6) (Annex 7).

3 Passive surveillance: is based on the reporting system which is strengthened by an electronic epidemiological database where any notifications on poultry/human cases, pre-slaughter testing, testing of imported birds and bird's pre-movement records is registered. This surveillance is done by official veterinarians at local levels through:

i. Notification via veterinary clinics as a basic unit up to the central level.

ii. CAHO team (Community-based animal health and outreach), uses PE for active search on rumours about suspected HPAI outbreaks, a form of surveillance supported by laboratory diagnostics. It is a very sensitive surveillance method, which means it can detect possible HPAI reports that can then be investigated further to find out whether they are caused by HPAI or not.

iii. Hotline: GOVS established a hotline for receiving any complaints (19561).

B. Examination of commercial production flocks: Samples are collected for examination according to the following activities;

B.1. Examination of the flocks suspected of being infected with influenza:

Objective: To detect the presence of avian influenza virus in flocks that have clinical signs such as (sudden death or increase the mortality rate of 1% in two days or the lack of production of eggs by 10% and consumption of feed and drinking water).

Type and number of samples: A total of 10 samples from 5 freshly dead birds (5 tracheal samples and 5 cloacal~~)~~ **swabs for PCR testing)** are collected from freshly dead birds and 20 swabs from 10 infected live birds showing symptoms (10 tracheal swabs and 10 cloacal swabs).

Sample unit: Samples are taken from each farm.

Time to collect samples: Once suspected of disease.

B.2. Inspection prior to transportation:

Objective: the transfer of flocks from breeding farms to production farms or before the departure of flocks from the farms for slaughter and marketing.

Type and number of specimens: A total of 20- 30 tracheal swabs are randomly collected from any species (chicken, ducks, turkey) for PCR testing prior to any movements from farms (compartments or not) and all types of birds

Sample unit: Samples are taken for each 20,000birds.

Sampling deadline: within 7 days prior to the date of transfer.

B.3. Follow-up of immunity status:

Objective: a) To demonstrate absence of avian influenza virus in the flocks prior vaccination as preventive measure of spreading virus as well as non-exposure of workers to the virus and b) assess the efficiency of vaccination.

- Type and number of samples: A total of 20-30 blood samples are randomly collected from each species available on the farm to measure immunoglobulin every 21 days. A total of 20- 30 swabs are collected randomly every two months from birds in addition to daily sampling in certain farms which have own laboratories.
- Sample unit: samples are taken according to the number of birds per farm (as table 1 below)
- Sampling Time: according to the aforementioned times and with reference to the standard laboratory specifications for sampling as follows:
    - Samples collected from each type of bird are collected separately.
    - The samples should be transported with transport media and on ice to maintain them.
    - The samples must be transferred to the laboratory within 24 hours.
    - All samples must be sent with clear data.

Table 1: Number and type of samples required for immunisation evaluation

No. of birds / flock	Blood samples for HI Test	Swabs samples	
		Tracheal	Cloacal
Less than 5000 birds	20	20	20
5000-10 000 birds	25	25	25
10 001-20 000 birds	30	30	30

Samples are randomly drawn from the flock according to Table 1

A necessary number of samples was carried out (95% confidence level) to ensure that disease is absent, and the vaccination programme is efficient. For this, blood samples are collected in vacutainers and swabs in sterile containers. Samples are sent for examination at NLQP to ensure the effectiveness of vaccination and absence of infection. The costs of testing are at the expense of the producers.

All samples examined for AI types H5, H7 and H9 and tested for N typing N1, N2 and N8, using RT PCR.

B.4. Internal surveillance (for compartment program protocol):

1. NLQP receives serum samples every three weeks from registered farms, in addition every three months tracheal and cloacal swabs are tested by PCR.

2. Positive serological results in unvaccinated animals are followed-up with virological testing. Records of this type of surveillance are well maintained and up-to-date and NLQP shares them on a routine basis with GOVS.

3. In addition to official testing, the company that was visited is able to perform serology for AI using the ELISA and HI tests in their own laboratory. The company uses serological testing to monitor protection levels in their flocks.

4. Periodical examination of flocks should be conducted weekly in the field. In case of any clinical signs of disease, sampling shall be performed and sent for viral examination immediately (according to Table 1)

5. For the different flocks, a sample (swabs) is taken a week before slaughtering, transporting or selling to ensure that they are free of the avian influenza virus.

6. In case of refusal for sampling for monitoring by farm owners, this is considered a factor for the exclusion of the compartment to prevent the spread of the disease and maintain the poultry industry health situation and public health.

Surveillance performed in the HPAI free compartments

The surveillance that has been implemented in compartments revealing a negative results HPAI since the compartments have joined the system. The virological and serological results since 2017 have been annexed.

Year	Total no. of swabs samples collected for virological examination	Total no. of blood samples collected for serology examination
2017	5950	6600
2018	6742	8536
2019	6570	8250
2020	6210	7850

By 2020, a new list of HPAI free compartments has been added. 12 broiler farms, which are under management of an integrated poultry system companies, have been joined the Egyptian compartmentalisation program. The new compartments have been adopted by the GOVS as a free HPAI compartments after achieving the pre-requisites of the free compartments in compliance with Chapters 1.4., 4.4. and 4.5., and Article 10.4.4 of the OIE *Terrestrial Animal Health Code*. For the 14 compartments, a virological surveillance had been implemented for one year. 13,980 samples had been collected and examined by the NLQP. All results were negative for HPAI.

In compliance with the Article 10.4.19. and 10.4.20. of the OIE *Terrestrial Animal Health Code*, 4 poultry slaughterhouses which are under supervision of GOVS, have been approved to produce fresh and frozen poultry meat and poultry products from the adopted HPAI free broiler compartments. The 4 slaughterhouses are free from infection with high pathogenicity avian influenza viruses in poultry and have been subjected to ante- and post-mortem inspections in accordance with Chapter 6.3. of the OIE *Terrestrial Code* and have been found free of any signs suggestive of avian influenza.

B.5. External surveillance (National surveillance plan all over Egypt**):**

In order to assess the threat level, general surveillance in the country has to be conducted. Currently, Egypt does not have a policy of compensation which leads to underreporting as producers at all levels fear the economic consequences of reporting. Active surveillance is done in previously affected areas, GOVS and NLQP teams of veterinarians visit ten farms per day. In order to avoid spread of HPAI each team only goes to one farm in a single day. Passive surveillance is also conducted by testing birds before slaughter and prior to movement. However, not all village birds are included in the frame of this type of testing.

Also, GOVS established a hotline for receiving any complains (19561). Please see additional measures on early detection and contingency plan in Annex 8.

Samples of national surveillance (not included surveillance performed in the HPAI free compartments)

Year	Active surveillance		Passive surveillance		Pre-slaughter Farms samples
	Backyards	Live bird markets	Backyards	Farms	
2017	2953	12 052	1096	709	139 239
2018	1943	1979	1018	860	164 514
2019	525	10 645	1186	447	398 019
2020	1137	9061	920	152	162100

B.6. Diagnostic capabilities and procedures

NLQP has the capability to process samples for AI by serological (ELISA, AGID) and virological methods (virus isolation, PCR). The personnel at the laboratory are competent and well trained. NLQP has implemented six additional satellite laboratories to increase their ability to process samples. NLQP and its satellite laboratories are the authorised laboratories for poultry diseases testing (HI and PCR), including Avian influenza for the compartments. Farms under the program pay for testing their samples. There is coordination between NLQP and GOVS that includes sampling, sharing of compartment-level surveillance results on a regular and on-going basis.

B.7. Supervision and control of a compartment

Supervision and control of the compartments is under the responsibility of GOVS under specific regulations for the recognition of compartments that include a clear auditing and certification process.

5. Measures to maintain HPAI freedom

1 The location of farms must not be adjacent to any other commercial poultry enterprise. (Ministerial Law No. 1220 of 2010 and No. 368 of 2017)

2 Surveillance : HPAI control plan contains a comprehensive surveillance component as described in (Annex 6 and Annex 7)

3 Immediately after confirmation by laboratory of a HPAI outbreak, crisis cells must be quickly set up at the central, governorate and district levels for implementation of contingency plan. (Annex 8 and Annex 9)

4 Egypt has a standard set of rules and legislation to control imported poultry and poultry products according to OIE standards in the *Terrestrial Code*.

5 Vaccination. The decision to allow vaccination against a given H5N1 HPAI subtype in certain production sectors or farming systems should be based on risks assessment and cost-benefit analysis.

6 Public awareness: is conducted on a continuous basis. The activity is frequently performed in collaboration with other governmental and non-governmental organizations, such as Ministry of Public Health, Ministry of Interior, Ministry of Education, Police Authorities, Local Administrative Bodies, private sectors

Conclusion

Considering that:

- Infection with high pathogenic avian influenza viruses in poultry has not been present in all the 11 companies (composed of 30 farms/compartments/poultry slaughterhouses), for the past 12 months;
- Surveillance has been carried out in accordance with Articles 10.4.27 to 10.4.33 of the OIE *Terrestrial Code;*
- Notification system and epidemiological information on HPAI and Egypt's Veterinary services comply with Chapters. 1.1. and 3.1., respectively;
- Compartments are managed as stipulated in the articles 4.4.3 and 4.5. of the OIE *Terrestrial Code;*
- Poultry slaughterhouses are producing fresh and frozen poultry meat and poultry products In compliance with the Article 10.4.19. and 10.4.20. of the OIE *Terrestrial Animal Health Code;*

The OIE Delegate of Egypt declares that twenty-six compartments plus four poultry slaughterhouses included in this report, comply with the requirements for freedom from HPAI in poultry as of 21 May 2018 and 1 December 2020 respectively, in accordance with the provisions of Chapters 1.6, 4.4, 4.5, and Article 10.4.4. of the OIE *Terrestrial Code* (2019 edition).

Annex 1

I, the undersigned, Abdelhakim Ali
Delegate of Egypt
to the World Organization for Animal Health (OIE), takes responsibility for the self- declaration of freedom from Highly Pathogenic Avian Influenza (disease)

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Drawn up on 29/3/2021

Signature of the Delegate

I, the undersigned, Abdelhakim Ali
Delegate of, Egypt
to the World Organization for Animal Health (OIE), takes responsibility for the self- declaration of freedom from Highly Pathogenic Avian Influenza (disease)

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Drawn up on 11/3/2019.
Signature of the Delegate:

Annex 2

Biosecurity in poultry production farms

Biosecurity requirements are among the most important steps to prevent the disease and include the following:
First: Isolation:

The measures that be taken to isolate the birds inside the farm completely and to prevent the sources of infection from entry.

1. There must be a fence and gates of entry and exit specific on the farm with the presence of feet, trucks baths and/ or disinfection machines at these gates.
2. The spread of the virus by transport is carried out by any organism (humans, birds, rodents, and insects). As proven the virus can contaminate the outer shell of eggs, leading to the transmission of the disease from one place to another.
3. Prevents the entry of new birds (restocking) to the previously infected farms before (3-4) weeks at least after strict cleaning and disinfection program.
4. Remove all weeds and plants around the farms as they attract the wild birds which represent high risk for farms.
5. Where water fowl and wild birds are present; the chickens should not be raised in open areas.
6. The movement of persons and equipment should be limited and the introduction of birds with unknown health status to the farm should be forbidden.
7. Eradication program of rodents, insects and stray animals should be implemented that can transmit the virus.
8. Covering the ponds, lakes, waterways and drainage that can attract wild water birds or the farms located far away from them.
9. Workers in the farm should know the seriousness of the disease and ways of transmission.
10. Prevent the accumulation of any dropped rations around silos in the buffer zone of the farm to not attract wild birds.
11. The farm workers should be well trained to deal with the dead birds that may be present in the establishment and be considered a source of epidemics and disposal with hygienic methods.
12. Workers must take shower and use special clothes and shoes for work in the farm and before entering the poultry flocks.
13. Preventing the spread of the influenza virus through contamination of equipment, including:
    a. Be sure not to contaminate utensils and equipment with faecal materials or any organic materials and sufficient washing, clearing and disinfection for tires of vehicles that enter the farm (if it premised to enter)
    b. All cages and containers used for transporting birds should be cleaned with soap and disinfected. C- The washing machines should be washed and cleaned.
    c. Dead birds should be kept when sent to the laboratory in sealed plastic bags. For live birds, they shall be placed in boxes and not returned to the farm.
    d. The return of cars from the hatchery must be cleaned from inside (pedals) and must do this task to make sure to shower and change clothes before returning to the farm.
    e. Washing and disinfection of egg transport vehicles and egg crates.
    f. The virus can be transmitted in places where eggs are handled, so be sure to wash and disinfect these places to prevent spread of the virus to other places by traders and individuals.
14. Dealing with the litter:
    a. Remove the litter completely and scrape the surfaces and sides well to make sure to get rid of the organic materials that carry the virus.
    b. Litter from an infected flock should be disposed by burial or composting
15. Dealing with farms that raise different ages:
    a. These farms must be reared with extreme caution to ensure that the new flocks are not infected.
    b. The farm should be divided into completely separated flocks and the creation of buffer zones between the flocks and prevent movement between them and separate between workers for each.
16. Dealing with farms that raise one age:
    a. Follow the usual cleaning and disinfection program and include the eradication of the vector of infection such as rodents.
    b. Leave interval period for 4 weeks after end of cycle and disinfection.
17. Legal dimensions must be available between farms according to Egyptian law.

Infrastructural factors

All companies that participated in the compartmentalisation program were visited to observe the infrastructure and discuss the overall biosecurity plan with the technical managers. All companies are with very high biosecurity standards located in a fenced agricultural compound of several kilometres. Companies' themselves are completely

fenced with restricted access. Each farm inside the company has a dedicated crew of workers that live on the farm for periods of 20 days.

Second: Movement control

A. Companies or farms should comply with the existence of the records of the movement from and to the farms.
B. Movement must be controlled from and to the farm and within the farm as the movement of people and equipment contaminated with the virus considered the main source of infection.
C. When suspected of the disease on the farm, its employees shall take all the quarantine procedures (Appendix 4).
D. There must be a record of visits and the movement of people especially who move between farms as vaccinator teams.
E. In companies with many stations, an isolated area (wall work with appropriate dimensions between the stations) should be established to limit the movement of workers between farms.
F. Workers should wear clean clothes (washed) and change every day.
G. Disposing of dead birds in the farm, which is a critical source of infection by burning or burial using a special incinerator in the farm or through composting.

Third: Cleaning and disinfection

Influenza virus is very sensitive to most disinfectants and can be eliminated by heat and drying. The list of disinfectants includes the following:

1. Formalin, soap, TH4, chlorine, iodine compounds, VERCON S®. (All companies have its own disinfection program and GOVS has copy from this program for each company)
2. Removal all the organic material before disinfection.

Annex 4. A

List of the companies joined the compartmentalisation program

No.	Company Name	Compartment / farms	Location	Joining date*	Breeding& species	Capacity
1	Ismailia misr	**Ismailia misr poultry company Farm 5**	Sirapium – Ismailia – Suez road	27/8/2013	Broiler Parents (chicken)	35450 female + 3270 male
		Ismailia misr poultry company Farm 6	Sirapium – Ismailia – Suez road	27/8/2013	Broiler Parents (chicken)	34939 female + 3405 male
		Ismailia misr poultry company Farm 7	Sirapium – Ismailia – Suez road	27/8/2013	Broiler Parents (chicken)	37720 female + 4806 male
		Ismailia misr poultry company Farm 8	Sirapium – Ismailia – Suez road	27/8/2013	Broiler Parents (chicken)	40125 female + 3748 male
		Ismailia misr poultry company Farm 9	Sirapium – Ismailia – Suez road	27/8/2013	Broiler Parents (chicken)	43500 female + 7000 male
		Ismailia misr poultry company Farm 16	Sirapium – Ismailia – Suez road	27/8/2013	Broiler Parents (chicken)	35450 female + 3270 male
2	**AL-Watania**	**AL-Watania Grand Parents Complex**	ElwadyElfargh – WadyElnatron – ElbeheraGoveronate	21/12/2013	Grand Parents (chicken)	240000 Grandparent chicks
3	**Elkenana**	**Elkenana company for Grand Parents**	ElwadyElfargh – WadyElnatron – ElbeheraGoveronate	12/2012	Grand Parents (chicken)	520000 Grandparent chicks
4	**Misr Arab**	**Misr Arab poultry Company**	Elsadat City – ElamnElghezaay Area – ElbeheraGoveronate	15/6/2013	Broiler Parents (chicken)	140000female + 15%male
5	**Misr Elarabie**	**Elrabie poultry Co.**	Cairo Alex. Desert road Kilo 62 - ElwadyElfargh – WadyElnatron – Elbehera Goveronate	15/6/2013	Broiler Parents (chicken)	140000female + 15%male

6	**Amat**	**Arab Poultry Breeders CO.S.A.E**	ElwadyElfargh – WadyElnatron – ElbeheraGoveronate	10/6/2013	Broiler Parents (chicken)	About 500000 chicks
7	El **Dakahlia**	**El-Dakahlia poultry co.- South valley**	Abo Korkas – El Menya Goveronate	12/8/2014	Broiler Parents (chicken)	About 900000 female + 100000 male
8	**Elbana**	**Farm Fruits for Agriculture Investment (Elnatron-1)**	WadyElnatron – ElbeheraGoveronate	21/5/2017	Layers (chicken)	160000 chicks
		Farm Fruits for Agriculture Investment (Elnatron-2)	WadyElnatron – ElbeheraGoveronate	21/5/2017	Layers (chicken)	160000 chicks

*Joining date: the date of which the facility has implemented all its commitments and has been adopted by a technical evaluating committee to start the procedures of sampling and follow up.

Annex 4. B.

New list of List of the compartments joined to the highly pathogenic Avian Influenza free compartments

Serial	company Name	Compartment/ farms	Location	Joining date	Breeding & species	Capacity
1.	AL-Watania	AL-Watania for Broilers - Egypt 1	Elwady Elfargh – Wady Elnatron – Behira Governorate	18/11/2019	Broilers	360 thousand Birds
		AL-Watania for Broilers - Egypt 2	Elwady Elfargh – Wady Elnatron – Behira Governorate	18/11/2019	Broilers	360 thousand Birds
2.	El Ahram for poultry	El Ahram for poultry A	Elwady Elfargh –Giza Governorate	27/11/2019	Broilers	565 thousand birds
		El Ahram for poultry B	Elwady Elfargh –Giza Governorate	27/11/2019	Broilers	314 thousand birds
		El Ahram for poultry C	Elwady Elfargh –Giza Governorate	27/11/2019	Broilers	490 thousand birds
3.	El Dakahlia for poultry	El Dakahlia 10 of Ramadan poultry Co. 3	Belbeis -Sharkia Governorate	21/11/2019	Broilers	648 thousand birds
		El Dakahlia 10 of Ramadan poultry Co. 4	Belbeis -Sharkia Governorate	21/11/2019	Broilers	648 thousand birds
		El Dakahlia for broiler poultry Co. (Wadi Elnatron) 1	WadyElnatron – Behira Governorate	21/11/2019	Broilers	480 thousand birds
		El Dakahlia for broiler poultryCo. (Wadi Elnatron) 2	WadyElnatron – Behira Governorate	21/11/2019	Broilers	480 thousand birds
4.	Cairo Poultry Processing Company	Cairo Poultry Processing Company El-Nobaria 19 (A)	Cairo Alex. Desert road Kilo 49 – El-Nobaria -Behira Governorate	24/11/2019	Broilers	175 thousand birds
		Cairo Poultry Processing Company El-Nobaria 19 (B)	Cairo Alex. Desert road Kilo 49 – El-Nobaria - Behira Governorate	24/11/2019	Broilers	175 thousand birds
5.	Cairo 3A For Poultry	Cairo 3A For Poultry	Elwhaat ElBahrya –Giza Governorate	13/11/2019	Broilers	3 million 628 thousand birds

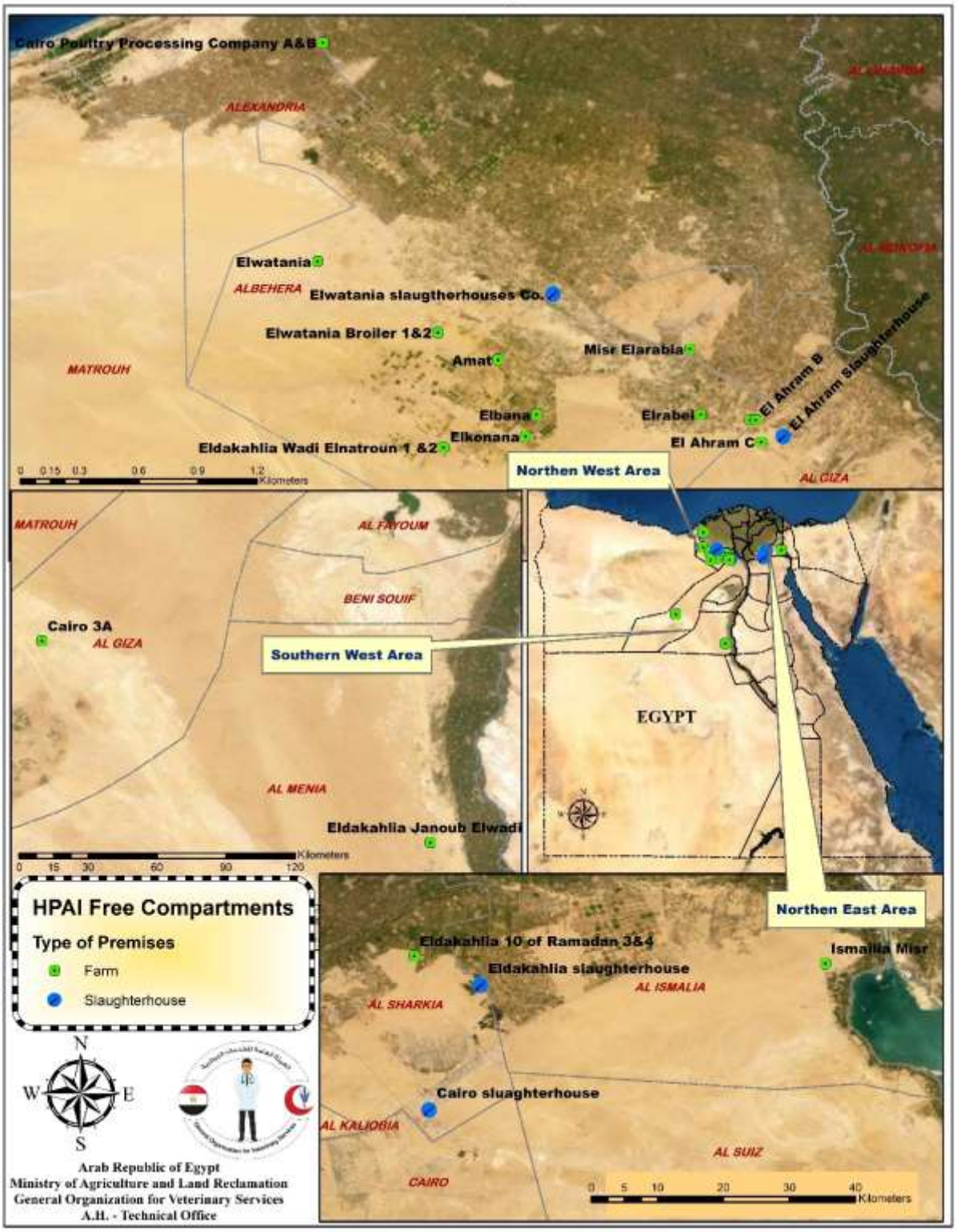
*Joining date: the date of which the facility has implemented all its commitments and has been adopted by a technical evaluating committee to start the procedures of sampling and follow up.

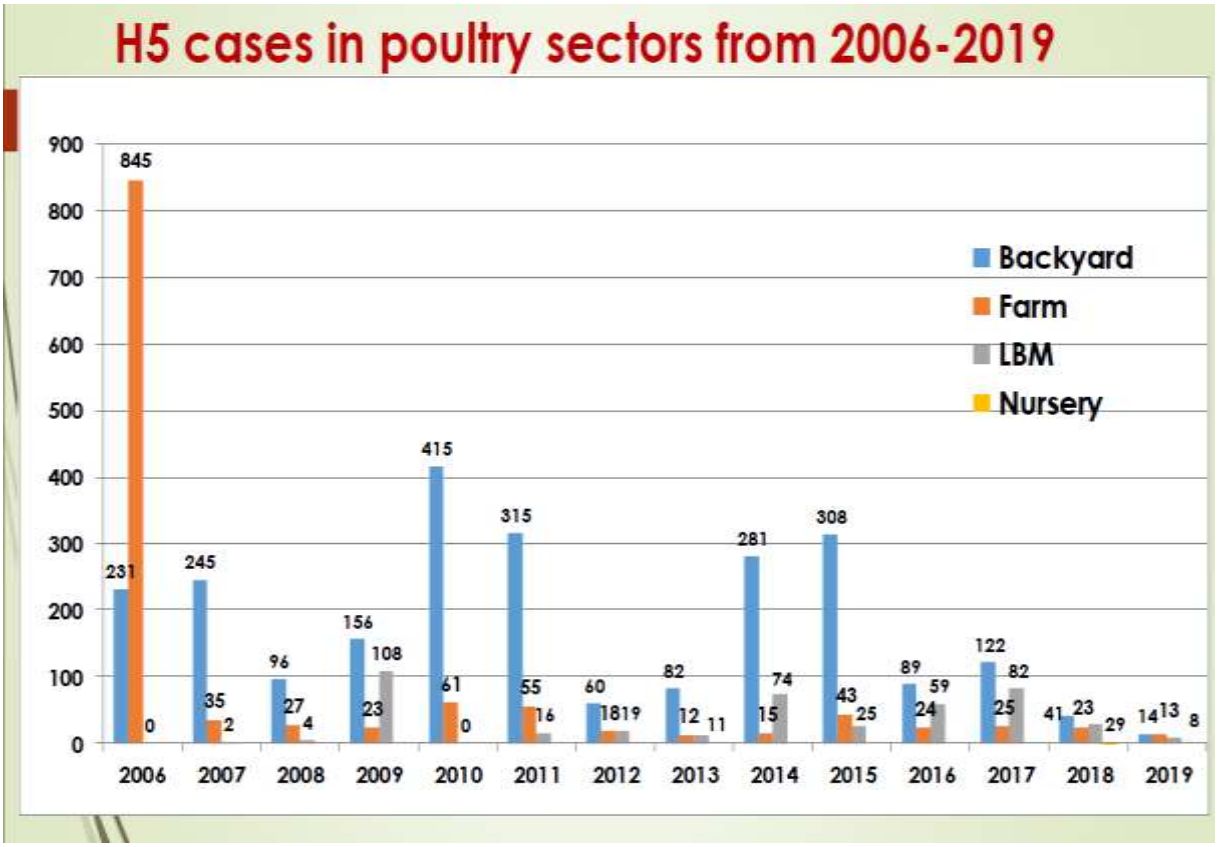
List of Slaughterhouses

Serial	company Name	Slaughterhouse	Location	Joining date	Capacity
1.	AL-Watania Company	AL-Watania poultry slaughterhouse	Elwady Elfargh – Wady Elnatron –Behira Governorate	18/11/2019	210 thousand birds / day
2.	El Ahram Slaughterhouse Company	El Ahram poultry slaughterhouse	Elwady Elfargh –Giza Governorate	17/11/2019	6000 birds / hour 32000 birds / day
3.	El Dakahlia Company	Dakahlia poultry Slaughterhouse	Ramses Road-Wadi El-mollak-Ismailia Governorate	21/11/2019	7000 birds / hour 60 thousand birds / day
4.	Cairo Poultry Processing Company	Cairo Poultry Processing slaughterhouse	Al Robaky Street, 2nd Industry Zone A, 10 of Ramadan City, Sharkia Governorate	24/11/2019	6600 birds / hour 60 thousand birds / day

Annex 4. C.

EGYPT
HPAI Free Compartments





The figure showing decline in the H5N1 positive cases in poultry sectors from 2006-2019

Annex 5 Veterinary services in Egypt

GOVS has committed to achieve compliance with OIE standards to evaluate and upgrade its capacity to ensure that it is capable to manage and respond to any AI outbreaks in poultry and human by identifying the capabilities needed the critical interventions to react and prevent new cases.

In compliance to chapters 3.1 and 3.2 of the OIE *Terrestrial Animal Health Code*, OIE had conducted an evaluation of Egypt Veterinary Services during 2007 followed by supplementary mission in 2009 after GOVS request. The objective of the evaluation was to provide the VS a framework for establishing priorities, strategic initiatives and action plans which will ultimately strengthen the VS infrastructure by evaluation of the four components which comprise the basic structure of the OIE-PVS Tool and which are viewed as the components of credible VS. The PVS mission has followed by PVS gap analysis mission in 2010.

According to the recommendations that have been elaborated from the PVS and gap analysis official reports and to ensure the quality of veterinary services in compliance with to chapter 3.1 of the OIE *Terrestrial Animal Health Code*, a future road map had been developed and concrete actions have been identified and summarized to sustain and elaborate the organizational set up including revising all regulations, improve the animal health situation by intensifying the efforts to control major diseases and intensify the training by improving the training facility to realize these goals. In addition, a new veterinary bill had been developed tacking into consideration mechanisms to update national legislation to reflect emerging issues related to issues of veterinary concern (emerging and re-emerging diseases, animal transport, animal health and welfare with clear reference to control of animal movements, animal disease control and reporting systems, epidemiological surveillance and communication of epidemiological information). The bill now at final stage for adoption by the Egyptian Parliament.

GOVS had drawn up and implement the policy and strategy of the most important animal diseases, including prioritization of the diseases of concern with first prioritization of HPAI under the scope of the one heath platform. National HPAI revised strategy was developed and adopted in 2010. In a wide range of communication with public and private partners and with collaboration with FAO, the action plan has been developed, documented, published and implemented with continuous upgrading according to the current situation. The governmental resource mobilization has been directed to ensure availability of human and financial resources which are required for strict and precise implementation of all stages of this strategy. In compliance to chapter 3.1 of the OIE *Terrestrial Animal Health Code*, and by 2014, GOVS has succeeded in developing national epidemio-surveillance network and early warning system involving development and management of the 1st epidemiological data networking in Egypt connecting central, governorate and district levels supporting rapid notification of animal disease suspicions and outbreaks. The notification procedure to the OIE (immediate notification, six monthly and annual reporting) has been improved.

Annex 9.

Summary of rapid response at suspicion

Level of expectation	Response and measures
Level Zero: In the absence of any satisfactory suspicion.	All bans are lifted inside and outside the facility
Level 1: Cases of initial questioning and non-escalation of cases from mere questioning.	The suspected flock is left, samples are taken and sent for laboratory examination quickly, a ban is made only on the infected farm.
Level (2): Initial cases of hospitalization in one of the serious poultry diseases and the absence of cases escalating from mere suspicion.	The suspected flock is left, samples are taken and sent for laboratory examination quickly, a ban is made only on the infected farm.
Level (3): Cases of apparent confirmation of the presence of a serious poultry disease by specialized doctors (whether they are affiliated with the General Authority for Veterinary Services or working in the private sector).	All the birds are slaughtered within the suspected farm. Samples are taken and sent for laboratory inspection quickly, a ban is made around and inside the infected farm and around the surrounding area. Intensification of awareness campaigns to prevent people from mixing with these infected birds.
Level (4): Cases of confirmation of the existence of a serious poultry diseases by doctors specialized in the country (when the epidemic).	Disease is confirmed without waiting for the results of laboratory tests. Action Ban around and inside the infected farm and around the surrounding area. All birds within the bans are eliminated and disposed of quickly to prevent the spread of the epidemic. Intensify awareness campaigns to prevent people from mixing with these infected birds

Responsible for the implementation and follow-up reaction at the request is the General Authority for Veterinary Services.