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Self-declaration of an Equine Disease-Free Zone in Syria for the purpose of facilitating the Equestrian competitions.

Self-declaration submitted to the OIE on 06 April 2020 by Dr Al Soliman, Delegate of Syria to the OIE, Director of Animal Health Services, Ministry of Agriculture and Agrarian of Syria

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Executive Summary

1. Introduction

The horse industry is a very large and important part of Syrian economy, with big diversity, involving agriculture, business, sport, gaming, entertainment and recreation. The equine population in Syria is considered the most important population of animals, and for this reason the Ministry of Agriculture and Agrarian Reform gives a great importance to the Syrian Arabian horse breed which have a great ability to adapt to all environmental circumstances in addition to their high capacity for Endurance and Beauty in shape. Moreover, Syrian horses reached the best results in various races and competitions at the international and regional levels.

Syria will host the Al-Waffa Championship for jumping horses during the period 18 – 21/ March – 2021. One of chain events is hosted by Bassel Al Alassad Equestrian Club in Dimas.

The candidate countries will participate in this important international event are Australia, Bulgaria, Egypt, Germany, Iran, Italy, Jordan, Lebanon, Russia, and United Arab Emirates.

Accordingly, and based on the importance of equines in Syria, which is very linked to the livelihood of farmers and stakeholders, especially high performance equestrian horses and Pure Arab Horses, the Veterinary Services (VS) in the Ministry of Agriculture and Agrarian Reform, and the Syrian Equestrian Federation in continuous collaboration with World Organisation for Animal Health (OIE) Experts and the regional representation for the Middle East, have put in place measures to establish an Equine disease free zone (EDFZ) in line with the OIE Standards. To achieve this, the Syrian VS requested the OIE for its technical assistance for Syria self-declaration of freedom from equine diseases in establishing the EDFZ in a specific area including the area of Bassel Al Assad Equestrian Club in Dimas in accordance with the EDFZ Guidelines.

The objective of this declaration is to notify the OIE Members about the equine health status in and around the venue for the equestrian competitions in EDFZ and to share with them the information on the establishment of the EDFZ for this purpose.

This is the first time that a self-declaration of freedom from notifiable equine diseases is submitted from Syria, which self-declaration of freedom refers to the following diseases: Glanders - Dourine – Equine infectious Anaemia (EIA) –Equine Influenza (EI).

The Syrian Veterinary Service is working now in the preparation of an African Horse Sickness (AHS) dossier for official recognition of disease status in accordance with the Chapters 12.1 and 1.7 of the OIE *Terrestrial Animal Health Code (Terrestrial Code)*.

All surveillance campaigns conducted between 2017 and 2020 in different parts of Syria, especially in the described zone for the EDFZ, indicated the very good health status for Equidae populations from the diseases mentioned above with a special attention to AHS. Syria has not experienced an outbreak of AHS since decades. In addition to that an active serological surveillance was conducted in Syria in the last year that led to concluded on the absence of antibodies to AHS virus and no clinical signs compatible with AHS were detected.

The disease-free status of this zone is maintained through biosecurity measures in particular the following:

- a) The complete closing of the EDFZ core zone,
- b) A depopulated surveillance zone surrounding the described zone and
- c) The vector control and horse movement control measures implemented
- d) The maintenance of all horses' good health status.

2 - Veterinary Services

Directorate of Animal Health (DOAH) is the part of Ministry of Agriculture which responsible for animal health services within Syria.

The presidential Law for Animal Wealth No. 9 date 7/ 4 /2019 and its executive instructions provides all the requirements and elements for animal health protection and control.

EDZ will be under the responsibility of VS and will assure all requirements for EDFZ are applied especially equine health status, EDFZ control, the biosecurity and contingency measures and regulations.

3 - Structure of the EDFZ

In line with OIE Guidelines, the EDFZ consists of a Core zone and a surrounding Surveillance zone. The core zone is the area for the equestrian competitions (Bassel Al Assad Equestrian Club) situated in the Dimas city in the Rif Damascus (located at 33° 35' 31.49" N 36° 05' 47.26" E), with about 0,2 km² size, and about 31 km far away from the centre of Damascus city towards to the southern highway and the Lebanon road, with the Sabboora junction towards the northern highway with the crossing of Dimas international highway.

The club is 47 km far away from Damascus International Airport by Highway (Airport road and then the first intersection and towards the southern highway and the Lebanon road), and the club is about 2.5 km away at east from the Sahara resort, and 1.2 km from the socialist veteran club, in addition the archery club surrounded the Basel Al-Assad Equestrian Club from the west and driving training school surrounded the club from the northern west.

The social engineers club is located about 200 meters from the western entrance of the club.

It features stables which are owned by the Syrian Equestrian Federation and mainly used for jumping, and the club is provided with high standards facilities and equipment.

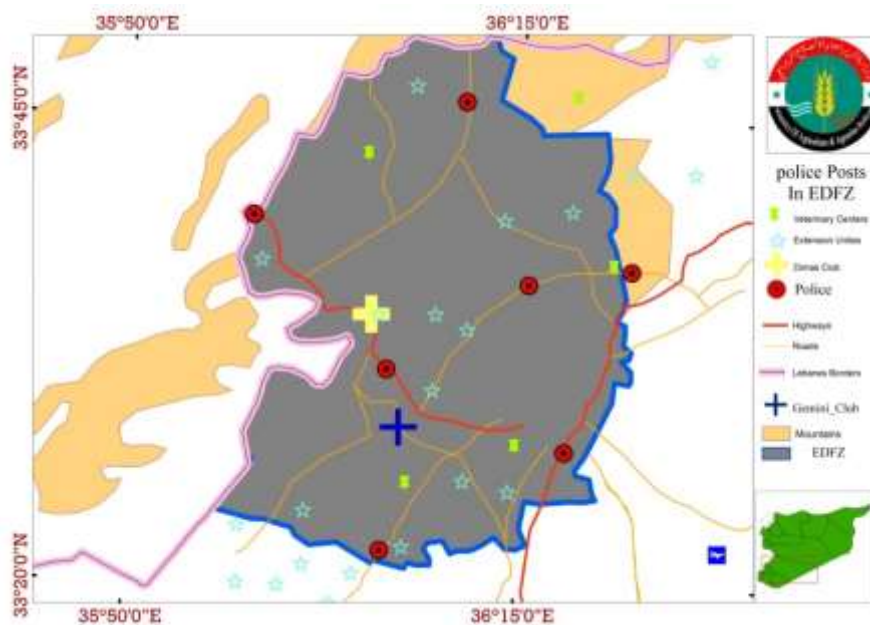
The Surveillance zone of the EDFZ falls under the VS responsibility of the DOAH and covers the 40 km radial diameter around Bassel Al Assad Club and stretches along the Qualamoon Mountains Chains. The borders of the EDFZ have a lot of natural barriers and geographical features. Its borders are shown in the map below:



Geographical position of the EDFZ



Core Zone



Surveillance Zone

Around the entry points of EDFZ, police and customs posts are established on the roadside. These police posts control all transports of live animals, including horses. Official veterinarians are present at these posts to supervise the movement control into the surveillance zone.

4 - Core zone

The equine disease-free zone consists of the CORE zone, which is the venue where the equestrian competitions are organized and is located in the Bassel Al Assad Equestrian Club in Dimas and is surrounded by a depopulated buffer zone and the highway corridor to the Lebanese Borders.

The core zone was established on principles of biosecurity, management and spatial considerations as described in Chapters 4.4. and 4.5 of the *Terrestrial Code*.

This establishment is situated at the Dimas city in the Damascus countryside (Rif) (centered at 33° 35' 31.49" N 36° 05' 47.26" E), between Lebanese border (Masnaa/ JdeidetYabous) and Damascus City (app

40kms). The club is approximately 120 km (Highway) from Jordan border and 47 km from Damascus airport (Highway).

The DEC is approximately 400,000 m² in an irregular rectangular shape located on the edge of Dimas to align the road to Damascus. The entire complex is surrounded by a solid concrete wall in excess of two meters high and electric fence and the wall keeps all possible animal intruders out.

The zone is effectively isolated from the surrounding equine populations and strict bio security measures are applied and all stables are well built, and the stables protected against arthropods insects and *Culicoides*, and there are natural barriers around the club.

The Core zone at Basel Al-Assad club contains 150 horses, and EDFZ Equidae population consist of 450 horses, 12 donkeys, five mules, and there are small changes in animal populations according to animal movement.

5 - Baseline disease situation

All OIE listed equine diseases are notifiable diseases in accordance with Syrian regulations (Animal Health Law No. 9 / Date 7.4.2019 especially chapter 7 – Chapter 10), and the VS is committed to send periodical reports via WAHIS to the OIE (Annex 11)¹.

MAAR issued regulatory decision No. 245. T I 2015 (annex 16)¹ which contains all notifiable animal diseases in accordance with OIE standards which clarify the roles of owners, breeders, veterinarians and relevant authorities.

VS send periodical circular to the animal health departments in the provinces and to all stakeholders to commit with all regulations related to notifiable diseases and suspicion cases.

VS adopted a list of equine notifiable diseases as the follows:

- African horse sickness (1961)
- Contagious equine metritis (Domestic and Wild)
- Dourine (Domestic and Wild)
- Equidae herpesvirus-1 (EHV-1)
- Eastern Equine Encephalomyelitis
- Equine encephalomyelitis (Western)
- Equine infectious anaemia (EIA)
- Equine influenza (EI)
- Equine piroplasmiasis
- Equine viral arteritis
- Glanders (1973)
- Venezuelan equine encephalomyelitis

According to the absence of clinical symptoms, active surveillance and laboratory diagnosis results, Syria is free from the main OIE listed disease of relevance to Equidae from which this EDFZ is declared free. This statement is based on yearly active surveillance for Glanders, Dourine, AHS, EIA, EI.

For other disease of relevance to Equidae, such as anthrax and rabies, the Syrian Veterinary Service is committed to notify all animal diseases transparently to the OIE via WAHIS, and there is a robust system in place for the surveillance of rabies in cooperation with the Ministry of Public Health. The last outbreak of rabies was about 500 km away from the EDFZ, and the disease spread into a limited area.

¹ Annexes are available through this [hyperlink](#).

The last outbreaks for Anthrax in Syria were in Deir Ezzor Province (about 500 km away from EDFZ), and in Homs Province (about 250 km away from EDFZ). All susceptible animals were vaccinated, and all preventive and control measures have been taken to prevent the spread of the disease.

In the EDFZ area, there was no recording of any suspected or clinical cases of rabies or anthrax and all periodical tests performed were negative.

Testing for exported horses have been always conducted in international accredited /reference laboratories, and all results indicated a good health situation for Syrian equines. Furthermore, the Syrian VS in cooperation with regional veterinary authority in the country carries out active surveillances for investigation of equine diseases, and in accordance with the surveillances results Syria is free from the equine OIE listed diseases mentioned above.

According to the reports received from regional departments and to veterinarians' observations, none of the notifiable infectious equine diseases included in this self-declaration of freedom have been observed in Syria in the last decade. The last occurrence of Glanders was reported in 1973 and of AHS in 1961. The Syrian VS is committed to notify to the OIE all notifiable animal diseases.

6 - Equine health status in the EDFZ surveillance zone

To establish the health status of the resident animal population, a series of sero-surveys for the diseases of interest were planned and conducted. Diseases were selected on the basis of the most important OIE notifiable diseases of relevance to Equidae and according to the Equidae health situation in the region. The diseases selected in the sero-survey were African horse sickness (AHS), Equine Influenza (EI), Equine infectious anaemia (EIA), Glanders and Dourine.

At the same time, the routine surveillance was enhanced in the entire surveillance zone. The surveys took place between 2017 and 2020. Samples of all Equidae population in the EDFZ (horses, donkeys and mules) were sent to the Central Veterinary Laboratory of Syria and tested.

AHS has never been reported in Syria nor in neighbouring countries since than 1961 and the vaccination against AHS is prohibited in accordance with MAAR instructions and adopted national vaccination program, as regularly notified by Syria to the OIE through WAHIS. In addition to the above -mentioned surveys, Syria conducted a serological survey to confirm the absence of AHS and has plans to apply to the OIE for the recognition of AHS free status.

Equidae populations in all Syrian governorates were included in the surveys (Table2), and covered most of districts (Except Idleb Governorate and north of Al-Hassaka Governorate)

All samples for AHS were tested by using ELISA test in accordance with Chapter 2.5.1. of the OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals (2019) (Terrestrial Manual)*

VS adopted a random sampling to carry out the sero- surveillance, and all equidae populations in EDFZ were included in the survey for investigation of equidae diseases, and all tests have been done in the Central Veterinary Laboratory (CVL) which is the accredited laboratory at country level for equidae diseases, in addition the samples were sent to reference laboratory in Dubai.

All samples were tested in accordance with OIE *Terrestrial Manual*.

Disease	Available Test
Glanders	CFT
Dourine	CFT
EIA	Indirect ELISA
EI	HI – PCR
AHS	Blocking ELISA
Equine Rhinopneumonitis	ELISA – PCR

Table (1): Available Tests in CVL

It should be noted that International Committee of the Red Crescent (ICRC) provided DOAH in 2020 with required diagnostic kits for equine diseases, and ICRC is committed to provide DOAH with all diagnostic kits for equine diseases within a 2021 plan.

The Syrian Veterinary Service in cooperation with regional veterinary authority in the country carried out active surveillance for investigation of equine diseases, and in accordance with the results of this surveillance, Syria considers itself free from OIE listed equine diseases as the following table shows:

Year	No. Samples (Glanders)	Res	No. Samples (Dourine)	Res	No. Samples (EIA)	Res	No. Samples (EI)	Res		No. Samples (AHS)	Res
								Res Pos ¹	Res Neg ²		
2013	1076	Neg	1076	Neg	1209	Neg	459	212	247	830	Neg
2015	1123	Neg	1123	Neg	1433	Neg	470	207	263	944	Neg
2016	1309	Neg	1309	Neg	1675	Neg	609	378	231	950	Neg
2017	1650	Neg	1650	Neg	1850	Neg	560	312	248	1250	Neg
2018	1867	Neg	1867	Neg	1972	Neg	665	409	256	1300	Neg
2019	2145	Neg	2145	Neg	2160	Neg	732	560	172	2314	Neg
2020	2350	Neg	2350	Neg	2350	Neg	770	588	182	2350	Neg

Table (2): Equidae Diseases Surveillance in Syria

Syria didn't record any confirmed cases for EI, and all positive samples during the last surveys were resulted from vaccinated animals in accordance with the adopted preventive vaccination programs.

During the surveys, all samples were attached with questionnaire include all required information as: history of health status, any clinical symptoms, applied vaccine programs and treatment).

All suspected cases are subjected to clinical examination and for laboratory diagnostic tests in particular PCR test.

During the surveys were conducted at DOAH laboratories shown that:

¹All positive samples to EI by haemagglutination inhibition (HI) test (included all Equidae in the EDFZ) had received an EI vaccination, in addition to imported vaccinated horses.

A second sample of sera is tested after 14 days to detect changes in antibodies level, and a random sample of more than 70% of horses with positive results were subjected to swap sampling and PCR test and all tests were negative for EI. This is also the usual procedures for any suspicious case as mentioned above.

²All negative samples were from unvaccinated Equidae populations.

As for the protocol of vaccination against Equine Influenza, SVS adopted the following vaccination schedule:

- A primary vaccination course of three doses at intervals of around 0, 1 and 6 months,
- A biannual booster (minimum requirement).

In the case of missing the committing of the vaccination schedule, it should be repeat the primary vaccination and continue with biannual doses.

7 - Identification, registration and traceability of Horses in Syria

A – HHP horses: (See paragraph No.4)

B – Syrian pure breed Arabian Horses:

- Syrian Studbook is updated annually
- About 7000 registered horses are Pure Arabian horses
- All details of the owner (name, ID, Tel, location) were recorded
- Information was transferred to the epidemiological database in the VS
- In the database, each owner was allocated with a unique identifier number and each registered animal is linked to a specific owner. An individual animal ID is also generated by the system.

C - Local breed racehorses: Registration is carried out by microchips.

D- Donkeys and mules: DOAH has an electronic database for donkeys and mules' populations, breeders and locations, where all information related to breeders and animals is available, and the registration carried out by microchip when needed.

These procedures are implemented under the supervision of veterinary authorities and departments of animal health in the governorates, which take in the account the provisions of Chapter 4.3 of the *Terrestrial Code*.

8 - Maintenance of the EDFZ

Biosecurity measures have been introduced and strict control of incoming vehicles and persons, in addition to control program for vectors and rodents.

The Biosecurity Operational Manual (annex 7) is implemented which describes step-by-step all measures for horse stabling, exercising, and during competitions, as well as biosecurity measures for people managing the horses.

There are control posts and customs points based at strategic entry points into the Surveillance zone of the EDFZ. These control posts have a border post and VS inspector's resident during the event, assisting the police and customs to inspect all vehicles that transport animals. Animal Health Certificates are requested to move horses through these posts.

The concerned person who wants to move horses into the EDFZ should submit a written request to the Directorate of Agriculture and Agricultural Reform/ the Animal Health Department of the concerned province.

A technical competent committee is assigned to inspect the horses to be introduced, check their health status and absence of any clinical symptoms. Then, blood samples are collected to perform the required tests in the approved laboratories by the MAAR; in case that these horses are healthy, and the results of blood sample comply with the required sanitary conditions, then an official veterinary health certificate issued by the authorised veterinarians in the Animal Health Department/Veterinary Quarantine Division would be granted to allow these horses to enter the EDFZ area. Horses are

transported in special vehicles for horse transportation, that met the biosecurity requirements for animal welfare standards. The horses do not have contact with other animals during transport.

An international Animal Health Certificate specific for the venue entrance has been developed by VS (annex 5) and provides health requirements to import horses into Syria on a temporarily basis (Veterinary Certificate for the Temporary Importation of horses) for competition in equestrian events. There are additional o certificates for importation of horses for other purposes.

All certificates are compliant with the standards stipulated in Chapter 5.12 of the OIE *Terrestrial Code*.

9 - Equine Diseases Prevention

- Good cooperation with neighbouring countries in exchange of information about the health situation and quarantine procedures;
- Strict quarantine procedures at the border points;
- Veterinary quarantine staff covers all border points;
- Strict control the animal movement and related legislation;
- Robust legal framework to prevent illegal animal movement or smuggling;
- Strict national program for vector borne diseases and control of arthropods, insects and *Culicoides* covering the whole country through a control project in cooperation with the Arab Organization for Agriculture Development (AOAD) and disinfection from insects by support from FAO.

Syria in cooperation with FAO has implemented an emergency and immediate assistance projects since 2014 up to the end of 2020. These projects (OSRO-SY) aim to provide the technical assistances for animal wealth breeders (horses, cattle and sheep) by ensuring external anti parasite products application to spray animals, stables (stockyards) and animal breeding places.

There is a national program to control ectoparasites and insects, which was implemented in cooperation with MMAR and the Ministry of Local Administration and Environment to conduct and execute foggy spray process periodically in animal places, from early spring season up to the end of summer season.

10 - Equine Movement Control

All the horse breeding farms and clubs are subject to official veterinary supervision by the veterinary authorities in the area where these horses are located, and in coordination with the Syrian pure breed Arab Horses Directorate and its departments in the provinces, the horses are usually transported between different areas of the country for the following purposes:

1 - In the event of horses transfers between regions for the purpose of participating in various competition events, or for the purpose of mating: a clinical examination is carried out by veterinary officers to verify the health status of the horses and the required samples for laboratory diagnosis are collected, including for dourine testing before being allowed to be transported to participate in the races and competition events or mating and prior to grant the necessary health certificates and transport documents

2 - In the event of a change of property of animals (buy and sell): a clinical examination is carried out by veterinary officers to verify the health status of the horses and the required samples for laboratory diagnosis are collected to test for Glanders, Dourine, EIA, AHS, EI, Equine Rhinopneumonitis and blood parasites, then the transport documents for the movement of live animals is granted by the concerned

authorities in coordination between the veterinary authorities, the Syrian pure breed Arab Horses Directorate and the Equestrian Consultative Council(Annex 3 and 4).²

To issue the health certificate, VS conduct the required correspondence with relevant stakeholders and partners (SEF, Syrian pure breed Arab Horses Directorate and the Equestrian Consultative Council), as mentioned in Annex 3 and 4, to get the approval after studying the dossier.

Health certificate is issued after signing of veterinarian who is responsible on the quarantine centre, head of the quarantine section at DOAH and issued from the Director of Animal Health as entity authorised from the Minister.

* Horses are stabled usually in the farm or in the clubs, with the absence of grazing in big pasture because of small ownership of horses.

* Donkeys and mules movement requires Approval of veterinary authority and Laboratory analysis certificate.

With this document, the Delegate of Syria to the OIE -declares that the EDFZ consisting of a disease free compartment (the venue Basel AlAssad Equestrian Club in Dimas) during the period March 2021 for the following diseases : Equine Infectious Anaemia, Equine Influenza , Dourine and Glanders, and declares that the requirements of the *Terrestrial Code* have been met, assuring the participating equine health status is in line with OIE requirements for the hosting of an international equestrian event, which will be held in the Bassel AlAssad Equestrian Club in Dimas.

Furthermore, the Delegate of Syria to the OIE declares that the requirements with regard to the principles of biosecurity, management and spatial considerations as described in Chapter 4.3 and 4.4 of the *Terrestrial Code* have also been met.

For more information, please contact the Delegate of Syria to the OIE, Dr.Hosain Alsoliman.

² Annexes are available through this [hyperlink](#).

Self-Declaration of an Equine Disease Free Zone (EDFZ) in Syria



Ministry of Agriculture and Agrarian Reform



Syrian Equestrian Federation



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Acronyms

AHS	African horse sickness
AOAD	Arab Organization for Agriculture Development
CVL	Central Veterinary Laboratory
CVO	Chief of Veterinary Officer
DOAH	Directorate of Animal Health
EDFZ	Equine disease-free zone
EI	Equine influenza
EIA	Equine infectious anaemia
ECC	Equestrian Consultative Council
HHP	High Health High Performance
ICRC	International Committee of the Red Crescent
IQC	International Quarantine Center
MAAR	Ministry of Agriculture and Agrarian Reform
OIE	World Organization for Animal Health
TAHC	Terrestrial Animal Health Code
SEF	Syrian Equestrian Federation
VS	Syrian Veterinary Services
WAHIS	World Animal Health Information System
WAHO	World Arabian Horse Organization

1- Core Zone

Due to the necessity of equids participating in competitions and the international championships, the importance that equids have in the Syrian rural society, and the great international value of pure Arab horses, MAAR with relevant partners has supported this important sector and provided all facilities to develop and maintain this national wealth.

there is very interesting and supporting for keeping and breeding the horses.

The EDFZ is being established under the responsibility of the VS in collaboration with (SEF), which this compartment was established on principles of biosecurity, management and spatial considerations as described in Chapter 4.4 and 4.5 of the *Terrestrial Code*.

The equine disease-free zone consists of the compartment (the venue or CORE zone), which is surrounded by a depopulated buffer zone and the highway corridor to the Lebanese Borders.

The Core zone is the venue where the equestrian competitions will be organized and is located in the Bassel AlAssad Equestrian Club in Dimas.

The Core zone at Basel Al-Assad club contains 150 horses, and EDFZ equine population consist of 450 Horses, 12 Donkeys, 5 mules.

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The social engineers club is located about 200 meters from the western entrance of the club.

It features stables which are Syrian Equestrian Federation owned and mainly used for Jumping, and the club is provided with high standards facilities and equipment.

The Surveillance zone of the EDFZ falls under the VS responsibility of the DOAH, and covers the 40 km radial diameter around Bassel Al Assad Club and stretches along the Qualamoon Mountains Chains and the borders of the EDFZ has a lot of natural barriers and geographical features

The DEC is approximately 400,000 m²square in an irregular rectangular shape located on the edge of Dimas to align the road to Damascus. The entire complex is surrounded by a solid concrete wall in excess of 2 meters high and electric fence and the wall keeps all possible animal intruders out.

The stables are completely isolated and fully fenced. The whole club is very well security wise protected (Security forces, cameras, pre permit request to enter....).



Photos (1-2-3): Location of the Bassel AlAssad Equestrian Club

There are 10 veterinarians, employed at the club who provide 24 hours coverage and one groom to each three horses.

The veterinarians are in charge of regular routine checks on all horses and they always keep updated the health record, and national passports of all horses. All horses are vaccinated against Equine Influenza and Tetanus, as the FEI rules and all horses receive deworming treatment for every three or four months. The facility equipped also with storing and fridges for veterinary medicinal products and vaccines.

The club host about 200 jumping horses. All horses are identified by microchips and registered in the Federation registry for equestrian horses and at the World Arabian Horse Organization (WAHO) for pure Arab horses.

Stables are owned by SEF. The Club contains a large 100x80 meter indoor arena in addition to the 100x100 meter Olympic outdoor arena. There are three separate training arenas, two on sand and one with grass surface, plus a covered walking machine, in addition to other features like a hospital, a well-equipped veterinary clinic and surgery with digital radiography, a farrier’s workshop, an isolation stable barn and grooms’ buildings.



Photos (4-5) : Arenas at Bassel AlAssad Equestrian Club

The compartment is effectively isolated from the surrounding equine populations and strict bio security measures are applied. All stables are well built and protected against arthropods, insects and Culicoides. In Addition to, the club is surrounded by natural barriers.



Photo (6): Walls around the club



Photo (7): Stables at the club

The only entries are the main gate for spectators opposite the main tribune, one gate for entry of horses, and one gate for entry of personnel and supplies. All gates are secured, supervised and equipped with biosecurity devices like wheel washes and hand wash facilities.

- The hospital contains a complete medical care unit which is all linked and controlled by Veterinary Gate advanced software system:

*Registration

*Check-up area

*Surgical section

*Pharmacy

*Veterinary Lab

*X-ray unit

*Special Transport Vehicles

*Horse ambulance



Photos (8): Hospital of the club



Photo (9): Laboratory at the club

A Bio security Procedures Manual has been developed by the (DOAH) which describes a wide range of activities before the arrival and during the stay of the horses in the compartment.

Control of access to the venue, the procedures of cleaning the installations and stables, the disinfection of the isolated stables, clinic and vehicles and personnel hygiene, the removal of manure, rodent and vector control, the action which will be taken in case of suspicion of an infectious disease and the contingency plan all of the above mentioned procedures are, amongst others, described in detail in the Manual. A full range of declaration forms have been developed to document that the activities have been carried out.

2 - Surveillance Zone

The EDFZ is being established under the responsibility of the Syrian VS in cooperation with the (SEF) in line with OIE Guidelines, which the EDFZ consists of a CORE zone and a surrounding Surveillance zone.

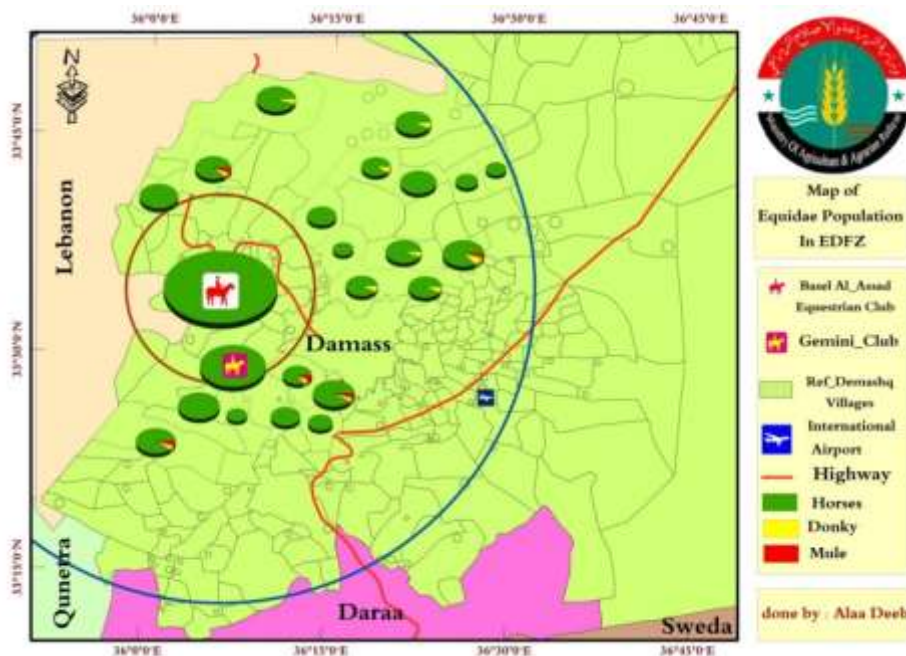
The Surveillance zone surrounding the venue (the Core zone) has been chosen by VS as a large zone, its centre is the Basel AlAssad Equestrian Club in Dimas with 40 km radial diameter and its centre is the Bassel AlAssad Equestrian Club.

The selected surveillance zone covers the administrative region of Dimas District and surrounded areas in Rif Damascus province, including the parts from (AlZabadani , AlTal, Daryaa, Qtana) districts cities.

The borders of the EDFZ have a lot of natural barriers and geographical features which can be described as follows by their limitations:

- Qalamoon Mountains Chain
- Western Lebanese Mountains Chain
- Barada River
- Alfigah River
- Zarzar Lake
- Qasioun and Alsheikh Mountains

EDFZ equidae populations consist of 450 Horses, 12 Donkeys, 5 mules according to last statistic which carried out in 2020, and there are small changes in animal population according to animal movement, and the nearest stable or farm for equidae is about 12 km away from the Basel Al-Assad club because it is a restricted area.



Map (1): Equidae Populations Distribution in Surveillance Zone

Village	Horses	Donkeys	Mules
Dahia	20	2	1
Daria	20	1	1
Al-Tal	15	1	0
Joubar	13	1	0
Al-Zabadani	15	1	1
Qatana	5	0	0
AL-Soja	50	0	0
Moadamaya AlCham	10	1	1
Rankous	15	1	0
Srghaya	18	1	0
Sydnaia	15	0	0
Sahnaia	7	0	0

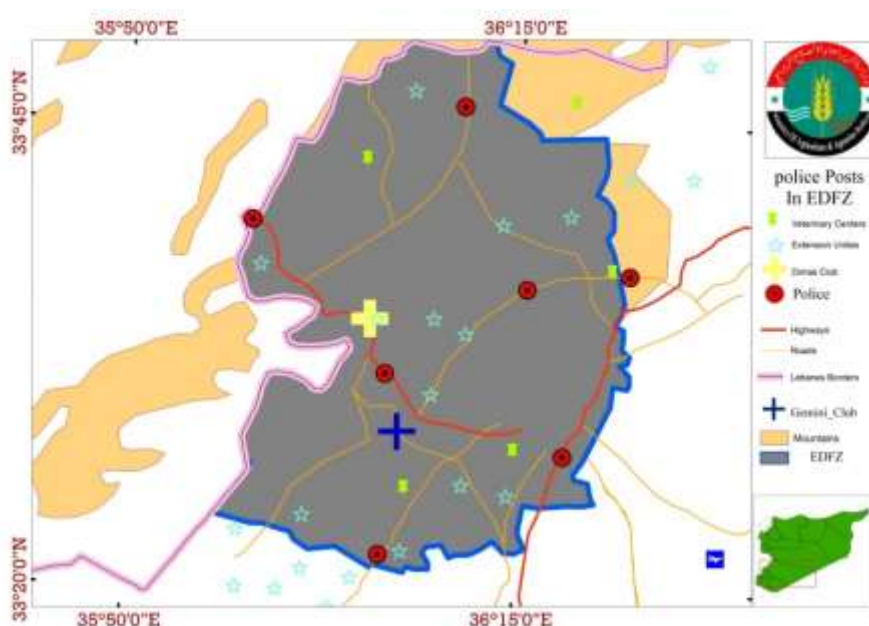
Addimass	150	0	0
Hafir Foqua	5	0	0
Jdidat Artouz	10	0	0
Halboun	10	0	0
Badda	6	0	0
Maaraba	12	1	0
Kfeer Yabous	17	0	0
Talfita	10	1	0
Qalaat Jandal	18	1	1
Al-Dreej	5	0	0
Ambia	20	0	0
Total	450	12	5

Table (3) Equidae Populations Distribution in Surveillance Zone

All Equidae populations are included in the annually sero- surveillances for investigation of equine diseases, and all animals subject to robust notification for in case of any suspected cases.

In this zone each horse owner is regularly contacted by phone or visit by the official Veterinary personnel responsible for the different districts where horses are based. No horses are allowed to move from this area into the 5 km buffer zone surrounding the venue.

Police and customs posts cover all the entry points to EDFZ, which control all transports of live animals, including horses, and VS veterinarians are included in these posts to supervise the movement control into the surveillance zone.



Map (2): EDFZ Control Points

-The Official veterinary staff in EDFZ centres and unites consist of 19 Vets and more than 55 Vet Assistant, and a lot of veterinary centres and extension units cover EDFZ and surrounded area who are responsible for providing the veterinary services and control the animal movement, these centres and unites are located in the following district and villages as in this table:

Veterinary Centres	Extension Units ⁽¹⁾
Rankous	Bdda
AlZabadani	Sydnaya
AlTal	Mneen
Daryya	Halboon
Qattana	Housh Arab
AlHaramoun	Srgaya
	Drbol
	Hena
	GdaydatYabous
	Dimas
	Deer Qannoun
	GdaydatAlWaadi
	Sabboura
	Artouz
	Kanaker
	Deer MaKer
	Baqssam
	Beet Saber
	Mahes

Table (4): Extension Unites in EDFZ

⁽¹⁾Extension unite is small agricultural department at the village level, belong to the directorates of agriculture in the governorate.

The tasks of extension unite are divided into two sides: Agriculture and animal health, whereas each unit contains Agri and Vet staff.

The veterinary staff in the extension unite provide the farmers and breeders with necessary veterinary services such as: vaccination, treatment, pest and rodents control, field visits, advice, awareness in addition to diseases notification.

3- Organization of Veterinary Services

MAAR consists of more than 50 central directorates, projects, in addition to the Directorates of Agriculture and Agrarian Reform (DAAR) at governorates, [fig. \(1\)](#) shows the administration structure of the MAAR.

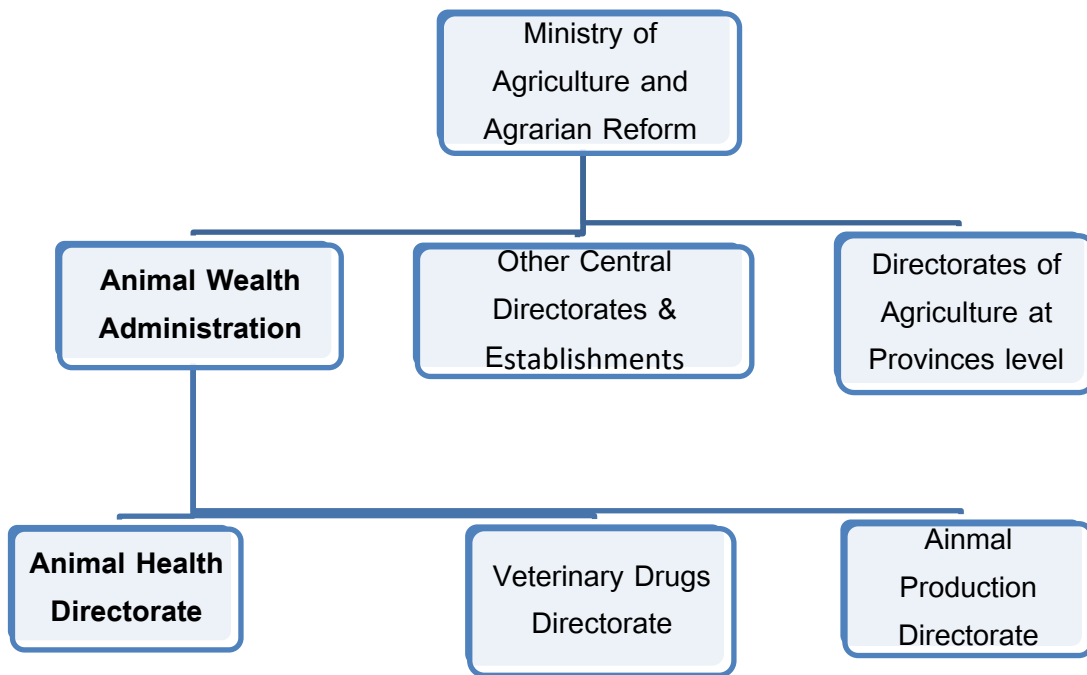


Fig (1): Administration Structure of MAAR.

The Directorate of Animal Health (DOAH) belongs to The Ministry of Agriculture and Agrarian Reform (MAAR), located in Damascus, and it is responsible for Animal Health Services, and VS in Syria is a member of World Organization for Animal Health (OIE).

- Directorate of Animal Health consists of /7/ seven technical sections as follows:
- Section of Infectious Diseases and Epidemiological Studies.
- Section of Veterinary Vaccines Production.
- Section of Veterinary Laboratories.
- Section of Zoonotic Diseases.
- Section of Poultry Diseases.
- Section of Veterinary Quarantine.
- Section of Veterinary Clinics, as shown below. [\(fig.2\)](#)



Fig (2): Administration Structure of DOAH.

The presidential law for Animal Wealth No. 9/2019 and its executive instructions provides all the requirements and elements for animal health protection and control.

The tasks, functions and structure of VS in Syria comply with Chapters 3.1 and 3.2. of the OIE *Terrestrial Code* especially in: Veterinary legislation, Independence, Professional judgment, Integrity, Objectivity, Documentation, Procedures and Standards.

- Funding is one of the important components of success in implementing and providing the VS for animal wealth, so that the government has assigned specific budget to the VS.

This funding covers the following topics:

- a) Equipping the working staff.
- b) Training and rehabilitation.
- c) Laboratory work.
- d) Vaccination campaigns.
- e) Control program and contingency plans.
- f) Purchasing tools and materials.
- g) Fuel and transportation costs.
- h) Other costs.

3.1 - Functions of the Directorate of Animal Health (DOAH)

- a) Implementing the animal wealth protection laws (No. 29/2006 – 9/2019) and the related executive instructions.
- b) Performing the health care plans and carrying out regular updates.
- c) Carrying out the surveying for animal diseases and following-up the epidemiological situation locally and internationally.
- d) Setting up plans for epidemiology surveillance, early warning, surveying notifiable diseases, and evaluation the success of protective vaccination campaigns.
- e) Notifying the animal diseases incidences.
- f) Estimating the animal health needs of medicines, vaccines, and lab materials.
- g) Organizing and following-up the implementation of animal diseases control and diseases eradication programs.
- h) Preparing the regulations and decisions related to animal wealth protection.
- i) Producing the veterinary vaccines locally and supply all the requirements for developing.

3.2 - Central Veterinary Laboratory:

CVL at DOAH includes the following Departments: Department of Virology - Department of Bacteriology -Department of Parasitology - Department of General tests – Department of Pathology and Department of Food safety, as it is shown below.



- The general tests department in DOAH is only the authorized lab for equine disease in the country that conduct the required tests for equine diseases and issuing the results and preparing the monthly and annually reports.

- DOAH is working now to establish new equine diseases laboratories in the governorates and began to train the staff and provide them with diagnostic materials and kits.
- Laboratory Capacity: More than 10000 samples annually
- There is special budget for laboratories, and MAAR provide the lab with all requirements.
- All diagnostic services are free of charge, except tests for exportation and importation.
- Strict biosecurity and biosafety measures are applied in the lab
- Biosecurity and biosafety measures for suspected live pathogenic agent
- Equine diseases diagnosis according to the *Terrestrial Manual*
- Central Lab participated in many proficiency tests in cooperation with reference labs and international institutes.
- Organizing annually training courses for veterinary technical staff (veterinarians – vet assistant) in order to provide them about latest technologies in the field of laboratory work and methods of collection, keeping and transport the samples, and edit technical instructions

Technical staff: The technical staff in the general tests section includes two veterinarians, one chemist, one agricultural engineer, seven veterinary paraprofessionals (technicians) and one laboratory worker and this technical staff is well qualified.

Applied Tests: Several techniques are available for equine diseases diagnosis according the *Terrestrial Manual*: ELISA – VNT – PCR – Cell Culture – CFT – Isolation and classification.



Photo (10): Analysis Certificate from Reference Lab

3.3- Central Epidemiological Unit

The epidemiology unit has firstly established in 2000 through the epidemiology and animal production project, which is implemented in cooperation with German Technical Cooperation Agency (GTZ).

According to Order No. 2363 dated 10/8 /2013 the unite tasks were issued:

- Participation in preparing epidemiological surveillance plans relating with contagious, infectious and zoonosis diseases.

- Implementing surveillance programs in cooperation with concerned authorities.
- Preparing the required reports.
- Preparing and developing several emergency plans and control strategies for wealth animal diseases such as PPR, AI, FMD, Brucellosis, Glanders, AHS etc.
- Following-up the international health status development by WAHIS – WAHID system, and sending periodically all the health status reports of the animal health in the country to the OIE.
- Availability of the monthly reports system (passive surveillance) to notify the infectious diseases in the field from the village level to the province level.
- Managing training courses for the veterinary technical staff in the field.
- Early warning system is available
- Robust system for recording, managing and analysing diagnostic, epidemiological and surveillance data.
- Survey covers all Syrian areas
- All Equidae species included in the survey

3.4. Veterinary Quarantine System

The VQ section at DOAH is responsible for implementation of the laws, to regulate animals and the animal products trading (export, import and transit) and prevent the illegal animal entry and control emergent animal diseases incidences.

VQ section supervises the application of the quarantine procedures as well as on animal and animal products within the country, controls the animal movement (Domenech, J 2012), (Ogundipe, G 2002), follows up the health situation, notifies and prepares the reports (TAHC 2011).

Syrian Veterinary Authority (SVA) worked seriously to prepare and implement strong and effective quarantine policies and strategies to maintain its animal health status (Arthur, R et al 2008). These policies and strategies ensure the provision of appropriate infrastructure to deal with exotic disease incursions, and to review preparedness control plans for incursions of outbreaks and emergency animal diseases.

VS provided all capabilities for successful quarantine procedures and risk assessment, in addition to improvement of the accuracy and transparent of information system to enhance Syrian trade position.

3.4.1 – Organizational Structure of Veterinary Quarantine System

VQ Section consists of three departments: VQ Department – Importation and Exportation Department – Following the International Health Situation Department. [\(fig.3\)](#).

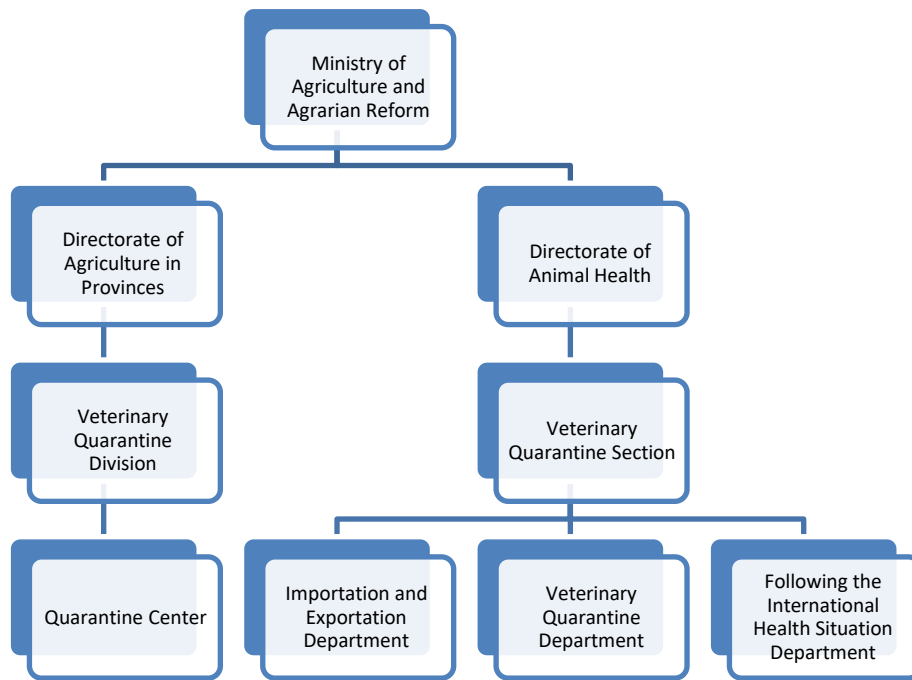
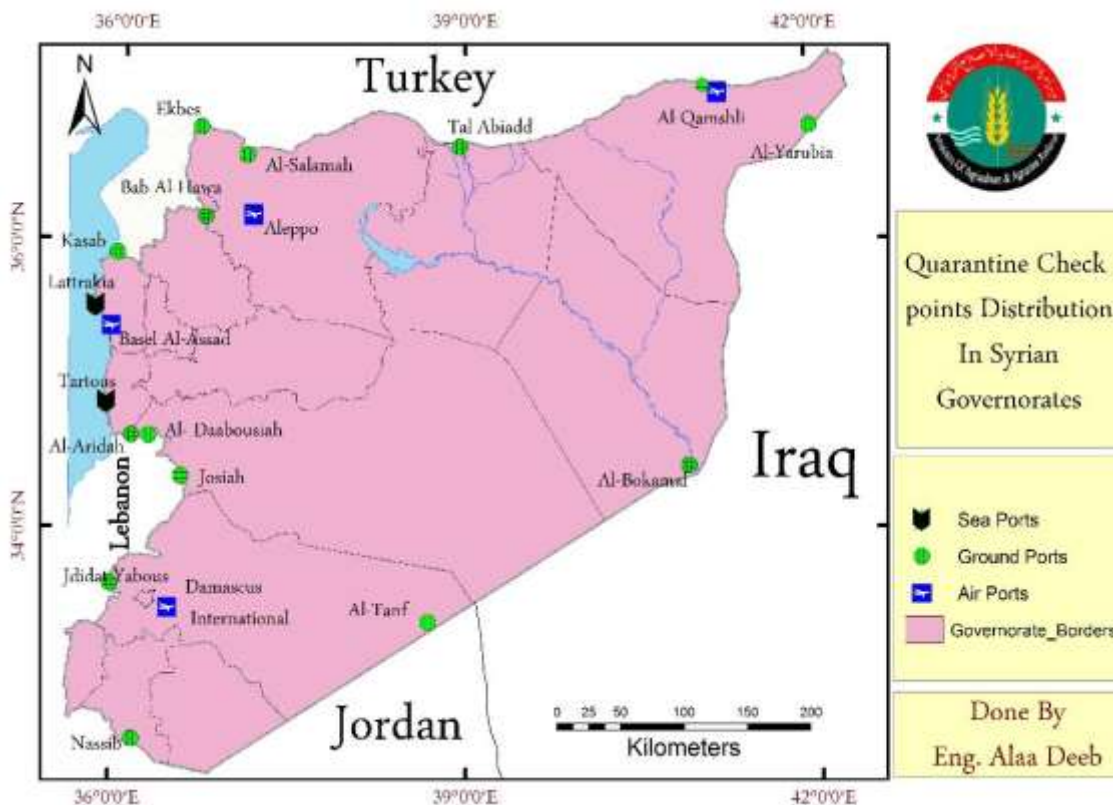


Fig (3): Organisational Structure of VQ Section

3.4.2. Veterinary Quarantine Centers Distribution

There are 22 Quarantine Checkpoints which cover all Syrian borders (2,253 km length) and inside the country like the airports (Map 3), whereas the control posts serve as early warning mechanism against the spread of TADs and form the first line of prevention of the incursion of exotic diseases.



Map (3): Quarantine Check Points Distribution

3.5 - Regional Veterinary Authorities

Each governorate has an Animal Health Department (AHD) and its structure is similar to DOAH, except Vaccines Production Department.

Organization and implementation of field activities, vaccination campaigns, surveillances, samples collection, implementation of emergency response functions, notification of animal diseases and official controls are under the responsibility of VS in regions, districts and some cities or towns.

The movement of livestock, livestock products and any other potentially contaminated materials within and outside the areas are also under VS control.

Syria has more than 1000 extension units which are distributed all over Syria, and mobile units working in Albadiah areas where most livestock keepers move their flocks, (small ruminants), which diseases are reported by the extension units to the AHD which contacts the DOAH in Damascus.

3.6–Public-Private partnership between MAAR and the horse industry

The Equestrian Consultative Council (ECC) was established in 2017 in cooperation between MAAR and SEF to perform the following tasks:

- Implementation of OIE recommendations to establish an EDFZ & HHP
- Coordination between veterinary authorities and horse industry
- Control of animal movement, and giving the appropriate approvals for imports and exports
- Holding open and transparent consultation with stakeholders.
- Supervising the execution of the veterinary quarantine procedures according to the laws and regulations in force.
- Exchange of information and experiences regarding to the animal health situation
- Developing the resolutions and decisions
- Enhancing the veterinary quarantine procedures
- Enhancing the cooperation in surveillances and epidemiological studies
- Sending samples of imported and exported animals to reference laboratories.

4 - Capacity Building and Training of Veterinary Staff

- a) Participating in the international, regional conferences, workshops and training courses.
- b) Conducting training courses for the working veterinary staff in the governorates.
- c) Conducting field-training days.
- d) Setting up scientific publications and holding symposiums and lectures.

5 - Role of farmers, keepers, regulatory bodies and others

It is fully recognized that true progress in equine sector is not feasible without the support of the owners of the animals and the other stakeholders in all related steps and procedures, therefore strong and continuous efforts will have to be made to get and maintain such support.

The VS in collaboration with regional animal health authorities apply periodical rounds to visit stables and places of breeding in provinces and prepare periodical meeting with the keepers and owners.

VS works to strengthen cooperation with all stakeholders and popular organizations as General Union for Peasants, Association of Breeders Union, Sport Equestrian Union, (SEF), Veterinarians Association, and veterinary technical staff working in the private sector, farm owners and breeders in the field of exchange of information on the health situation of horses and in carrying out the sero – surveys and to facilitate samples collection and animal identification.

Many of the workshops and training courses are organized about the horse's diseases and breeding and Resorting to Mass Media(newspaper-radio-TV) in order to educate farmers in addition to Conduct groups extension meeting for farmers.

General Union for Peasants, Association of Breeders Union, (SEF), and Veterinary Association participate in mutual committees related to equine sector.

EDFZ is considered as a new concept for veterinarians in Syria, so that the VS included it in the training courses at the training programs calendar at the central level and at the provinces level, so the last training course about control of animal diseases was in cooperation with ICRC in Nov 2020 which included lecture about EDFZ.

SEF and VS presented to presentations about EDFZ and HHP, in the second international conference for animal health which was held in the College of Veterinary Medicine – Hama University – 22 – 25 Apr / 2019. <http://www.hama-univ.edu.sy>

6 - Syrian Equestrian Federation (SEF)

SEF was established by Presidential Decree No. 38 Dated 18.2.1971, which the decree decided the tasks, function and the structure of the federation.

Federation is the part of General Sport Union in Syria and has regional branches in all the provinces, and the Federation is member of Syrian Olympic committee and member of Asian and Federation Equestrian International (FEI).

* The Equestrian Consultative Council (ECC) was established in 2017 in cooperation between MAAR and SEF for achieving the following tasks:

- a) Implementation of OIE recommendations to establish an EDFZ & HHP;
- b) Control of animal movement, and giving the appropriate approvals for importing and exporting;
- c) Holding open and transparent consultation with stakeholders.
- d) Supervising the execution of the veterinary quarantine procedures according to the laws and regulations in force.
- e) Exchange of information and experiences regarding to the animal health situation.
- f) Developing the resolutions and decisions
- g) Enhancing the veterinary quarantine procedures
- h) Enhancing the cooperation in surveillances and epidemiological studies
- i) Sending samples of imported and exported animals to reference laboratories.

7 - Legal basis

VS in cooperation with the relevant authorities worked to develop the regulation that related to equine populations, and for establishment of EDFZ as the following table, and VS also created specific Animal Health Certificate for animal movement into core Zone and EDFZ.

Furthermore, two national Movement Certificates were developed by support of VS implementation of movement control, namely the:

- Movement Certificate for Equidae into the Surveillance Zone:

This Certificate is intended for use by horse owners that have a need to transport their animals from anywhere in Syria into the Surveillance zone area. Equidae must basically undergo the same tests as any foreign horse and provide evidence for a residential period of 60 days on holdings free from certain diseases, in a region also certified free from certain diseases in Syria territory.

- Movement Certificate for Horses into EDFZ Core zone from the Surveillance zone of Syria:

This Certificate is intended for use by horses that will participate in the competitions and have been kept in the Hippodrome in the Surveillance zone which located in Addimas area, during the period prior to the start of the Games. These horses have to undergo the same set of tests as imported horses, even though they have been included in the surveillance ongoing they do not need to undergo quarantine.

Both Certificates were translated to Arabic language and available to all stakeholders and VS Veterinarians, particularly those at the Syrian border posts, and the control posts of the outer perimeter of the Surveillance zone.

Ref	Document ³	Specific relevance
1	Decision No. 133/ 217 (Annex 1)	Accreditation the HHP
2	Decision No. 150/ 217 (Annex 2)	Task of the HHP quarantine centre
3	Decision No. 229/ 2007(Annex 14)	Health conditions for importation
4	Decision No. 3332/ 2017 (Annex 12)	Tasks of the Arab horses Directorate
5	Law No. 9 / 2019 (Annex 11)	Animal Health law
6	Order No. 2363/ 2013 (Annex 13)	Tasks of DOAH
7	Executive Instructions for Animal Health Law (Annex 15)	Executive Instructions
8	Decree No. 38 Dated 18.2.1971 (Annex 3)	Tasks, function and the structure of the (SEF).
9	Memorandum Between Syria – Lebanon Dated 5.3.2017 (Annex 10)	Arrangement of horse’s movement between two countries

Table(5): Regulations and Decisions

8 - Evidence of notifiability

The basis for modifiability of infectious diseases in Syria is Law 9/2019, more specifically Article 45 “Anyone (including farmers/ producer, animal keeper, animal health worker, veterinary officers, government official) that have any knowledge on any infectious disease are required to report such case or event to the Government, Regional Government, and/or Local Authorized Veterinarians.”

A copy of this Presidential Law is submitted to all relevant authorities and organizations around the country.

9 - Regulatory System in Place

MAAR and VS in the context of the establishment of the EDFZ, have included a list of notifiable equine diseases in the executive instructions of Animal Health Law No 9, as listed in the OIE *Terrestrial Code*:

1. African Horse Sickness
2. Contagious Equine Metritis
3. Dourine
4. Equine encephalomyelitis (Eastern and Western)

³ Annexes are available through this [hyperlink](#).

5. Equine Infectious Anemia
6. Equine Influenza
7. Equine Piroplasmiasis
8. Equid Herpesvirus-1 (Equine Rhinopneumonitis)
9. Equine Arteritis Virus
10. Glanders Venezuelan equine encephalomyelitis
11. Japanese Encephalitis
12. Dourine
13. West Nile Fever

Disease investigations are carried out by regular passive and active surveillances, reporting system, disease inspection and research studies. Disease investigations are carried out by the Central VS and respective District Veterinary office and samples are taken to the CVL located in Damascus (DOAH).

Veterinary College and General Commission for Agri Research also participate in horses research studies and diagnostic activities.

10 –Equidae populations in Syria

10.1 - Horses

- The horse industry is a very large and important part of Syrian economic. It is diverse, and involves agriculture, business, sport, gaming, entertainment and recreation.
- Horse trading includes import, export and domestic trade.
- The equine sector is strongly growing. Its social and economic importance are shown in the turnover of the sector, in employment, in the number of enterprises, in the number of people engaged in the sector as a whole, also indirectly or as the amount of people taking an active interest in the sector.
- Equine sector contributes also to the biodiversity, landscape and livelihood of the rural areas.
- Horse population is diverse into: Pure Arab Horses and Hybrid horses
- Horses are stabled usually in farms and clubs under the supervision of official veterinary control. Veterinarians in the field or in clinics, officials or private, are requested to provide the veterinary authority with periodical reports on the health status of the horse population living in their areas of inspection.
- Veterinary authority carries out periodical surveys to inspect real health situation of horses.
- There are no wild or feral horses in Syria

10.1.1 - Locations

- There are nine governmental equestrian clubs: 5 in Damascus province, 1 in Homs province, 1 in Hama province, 1 in Aleppo province and 1 in Al- Raqqa province
- There is a large centre for Pure Arab Horses related to Ministry of Agriculture and Agrarian Reform.
- Syrian breed pure Arab Horses Directorate is also related to Ministry of Agriculture and Agrarian Reform which is responsible for registration and identification of the Arab horses.

10.2 - Donkeys and Mules

- It has an important role in rural area and Al-Badia (semi-arid area)

- Donkeys and mules are working animals which are used for dragging, poling, transporting, moving in mountains, guarding during the grazing season, etc.

- There are periodical veterinary authority visits for these animals

- Veterinary authority carries out periodical surveys to inspect the health situation and sometimes provides subvention and support mainly in distributing feed.

There are no wild or feral equids in Syria.

10.3 - Equine Market:

There are no markets for horses, so that selling, and buying are usually in the farm or the club.

Trading of donkeys and mules are usually in the same village or area, and there are no markets for donkeys and mules.

11 - Animal Health Management

11.1 - Census

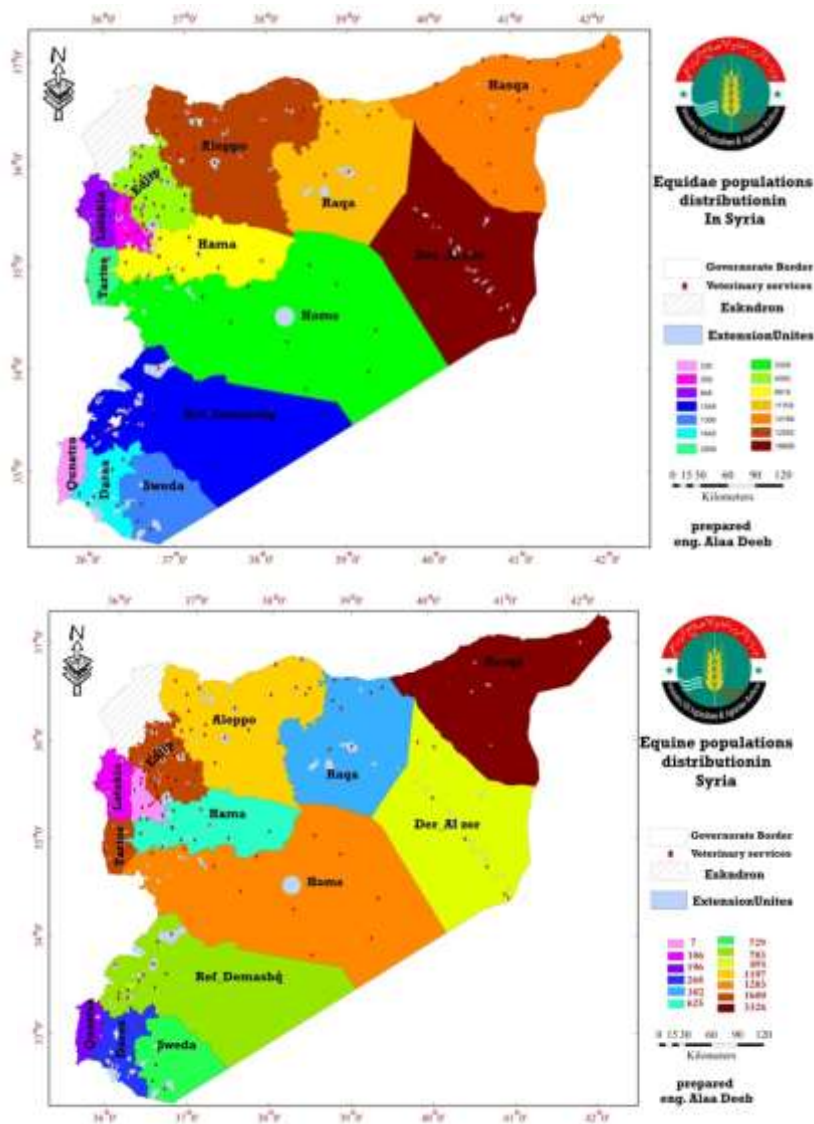
In the year 2017, MAAR has conducted a livestock census which covered all Syrian governorate and all animals' species.

The Equidae populations according to following table:

Governorate	Horses	Donkeys	Mules	Total
Swida	729	434	143	1306
Daraa	268	1279	80	1627
Qunitra	196	30	1	227
Rif Dmasscus	783	406	59	1248
Homs	1283	1940	105	3328
Hama	680	5336	145	6161
Al- Ghab	7	306	46	359
Idleb	1600	2200	250	4050
Tartous	1476	398	38	1912
Lattakia	106	740	-	846
Aleppo	1097	10659	696	12362
Al- Raqa	302	11352	45	11699
DeirEzzoe	890	17351	427	18668
Al- Hasaka	3326	8786	54	12157
Total	12743	61117	2098	75950

Table (6): Equidae Populations in Syria

- Total number of Pure Arab Horses were 7261 according to 2017 statistic
- 585 hair and blood samples for DNA identification during 2017
- 541 issued passports during 2017
- 618 tattooed horses during 2017



Map (4-5): Equidae & Equine Populations in Syria

11.2 - Identification, registration and traceability

A – Syrian breed pure Arabian Horses:

- The owner of foal provides the veterinary authority with request for registration, attached with mating certificate clarifying the name of the Sire and Dam.
- Veterinary authority draw the marks of foal and takes sample from the hair including hair follicles, for DNA identification
- The sample is sent to reference lab in Germany
- After receiving the result from reference lab, veterinary authority makes sure the identity and the marks and carry out the tattoo at the right side of neck.
- Tattoo information includes the birthday and serial number consist of four digits (0000).
- After the tattoo and registration in official records, the passport of horse is prepared which includes the name, number of registration, birthday, drawing, owner and photo.

- MAAR began to provide all horses with the microchips.
- Syrian Studbook is updated annually
- About 7000 registered Pure Arabian horses
- All details of the owner (name, ID, Tel, location) were recorded
- Information was transferred to the epidemiological database in the VS
- In the database the owner was allocated a unique identifier number and each registered animal is linked to a specific owner. A unique animal ID for the individual animal is also generated by the system.

B - Hybrid horses: Registration is carried out by microchips.

C - Donkeys and mules: DOAH has an electronic database for donkeys and mules populations, breeders and locations, which all information related to breeders and animals are available, and the registration carried out by microchip when needed.

These procedures are implemented under the supervision of veterinary authorities and departments of animal health in the governorates, which take in the account the Chapter 4.3 of the OIE *Terrestrial Code*.

11.3 - Baseline disease situation

All equine diseases are notifiable disease in accordance with Syrian (Animal Health Law No. 9 / Date 7.4.2019 especially chapter 7 – Chapter 10), and VS is committed to send periodical report via WAHIS to the OIE.

According to the surveillances and laboratory diagnosis results, Syria is free from OIE listed equine diseases included in this self-declaration. This statement is based on yearly active surveillance for Glanders, Dourine, AHS, EIA, EI.

Equidae populations in all Syrian governorates were included in the surveys, and covered most of districts (Except Idleb Governorate and north of Al-Hassaka Governorate, (Table 2) .

-Testing for exported horses have been always conducted in accredited /reference laboratories, and all results indicated for good health situation for Syrian equines.

According to the received reports from regional departments and veterinarians' observations, none of the notifiable infectious equine diseases has ever been observed in Syria.

All surveillances, tested samples and received reports from provinces indicated to the absence of any suspected cases or evidence of infection with *B. mallei* (glanders) in the past 12 months, in accordance with Article 12.10.8.

EDFZ is established to host a sport event that does not involve breeding activities and not for breeding or reproductive purposes, whereas VS worked to be sure to monitor and control of reproductive diseases.

All sero- surveys for Dourine disease in the last 25 year were negative with absence of any clinical cases, and all breeding horses in Syria have been subjected to diagnostic tests for Dourine with negative results for tests that performed annually over many years.

VS adopted a random sampling to carry out the sero- surveillances, and all Equidae populations in (EDFZ) were included in the survey for investigation of Equidae diseases, and all tests have been done in the (CVL) which is the accredited laboratory at country level for Equidae diseases, in addition to samples that are sent to reference laboratory in Dubai.

All samples were tested in accordance with OIE *Terrestrial Manual*.

It should be noted that (ICRC) provided (DOAH) in 2020 with required diagnostic kits for Equidae diseases, and (ICRC) is committed to provide (DOAH) with all diagnostic kits for Equidae diseases within a 2021 plan.

VS in cooperation with regional veterinary authority in the country carries out active surveillances for investigation of equine diseases, and in accordance with the surveillances results therefore Syria is free from OIE listed equine diseases as showed in the following table.

Year	No. Samples (Glanders)	Res	No. Samples (Dourine)	Res	No. Samples (EIA)	Res	No. Samples (EI)	Res		No. Samples (AHS)	Res
								Res Pos ¹	Res Neg ²		
2013	1076	Neg	1076	Neg	1209	Neg	459	212	247	830	Neg
2015	1123	Neg	1123	Neg	1433	Neg	470	207	263	944	Neg
2016	1309	Neg	1309	Neg	1675	Neg	609	378	231	950	Neg
2017	1650	Neg	1650	Neg	1850	Neg	560	312	248	1250	Neg
2018	1867	Neg	1867	Neg	1972	Neg	665	409	256	1300	Neg
2019	2145	Neg	2145	Neg	2160	Neg	732	560	172	2314	Neg
2020	2350	Neg	2350	Neg	2350	Neg	770	588	182	2350	Neg

Table (7): Equidae Diseases Surveillance in Syria

¹All positive Equidae populations (Included in the EDFZ) had received an EI vaccination at some point in life, in addition to imported vaccinated horses.

²All negative samples were from unvaccinated equids.

12 - Vector surveillance

DOAH in cooperation with Arab Organization for Agriculture Development (AOAD) through an executive project for vectors control in additional a lot of projects in cooperation with FAO, established strict system for vectors surveys and control.

To assess presence of competent vectors for equine and zoonotic diseases at the venue and surrounded area in the EDFZ, The Department of Parasitology (DOAH) in cooperation with relevant authorities carried out a vector surveys according to TAHC Chapter 1.5 with attention for environmental, climatic, ecological and topographic conditions.

The key findings revealed that there were no ticks and no bats present on the venue during surveys.

Due to the consideration of EDFZ as a tourism area with high governmental services, this area is considered as a very clean area and subjected to strict control and prevention program.

Ministry of Local Administration subjects strict measure on the stagnant water sources which were cleaned and dried, those facilities were thoroughly cleaned and disinfected so that they were no longer an attraction of insects.

Based on the findings of the survey a vector control programme was elaborated, using insecticides known to be effective against the identified insects and that are registered in Syria (Deltamethrin - Cypermethrin).

The control programme also includes a rodent control programme in cooperation with Ministry of Local Administration and regular inspection of the stable areas for bats in cooperation with Ministry of Environment.

13 - Equine Diseases Prevention:

- No cases of the equine notifiable diseases have been reported.
- Good cooperation with neighbouring countries in exchange the information about the health situation and quarantine procedures
- Strict quarantine procedures at the border points
- Veterinary quarantine staff covers all border points
- Strict legislation control on the animal movement
- Robust legislations to prevent illegal animal movement or smuggling
- Strict national program for vector born disease and control of arthropods insects and Culicoides covers all Syrian areas through a control project in cooperation with AOAD and disinfection from insects by support from FAO

13.1 - Vaccination:

All Equidae in EDFZ are vaccinated to Tetanus and Equine Influenza according to VS instructions, and vaccination for EI complies with the recommendations of the Chapter 12.6 of the OIE *Terrestrial Code* and Chapter 3.5.7 of the OIE *Terrestrial Manual*.

As for the protocol of vaccination against Equine Influenza, SVS adopted the following vaccination schedule:

- A primary vaccination course of three doses at intervals of around 0, 1 and 6 months,
- A biannual booster (minimum requirement).

In the case of missing the committing of the vaccination schedule, it should be repeat the primary vaccination and continue with biannual doses.

13.2 – AHS Situation in Syria:

- * African Horse Sickness is a notifiable disease and reports have been notified regularly to the OIE through WAHIS reports.
- * No cases of African Horse Sickness have been reported or confirmed in Syria or in the neighbouring countries since 1961.
- * Regulatory measures for the early detection prevention and control of African Horse Sickness have been in place for decades.
- * Equine and equine products importation are conducted according to OIE *Terrestrial Code*
- * Vaccination for AHS is prohibited
- * Strict national program for vector born disease.
- * All the results of tested samples and sero surveys were negative for (AHS): More than 5000 samples were tested in the last five years.

* All tests for exported horses have been always conducted in reference laboratories were negative for AHS.

* Strict legislations and quarantine procedures are applied to control equine movement, and to prevent illegal animal movement or smuggling.

* Importation of vaccinated horses for AHS is prohibited too.

* importation of semen, oocytes or embryos from infected countries or zones is prohibited.

* VS are working now to prepare AHS freedom dossier in accordance with OIE Code (Chapter 12.1, and Chapter 1.7)

* There is an adopted contingency plan for (AHS) that includes:

Description of the disease, Aetiology, Signs, Diagnosis, Target of the contingency plan, Structure, Functions, Rapid intervention teams, Quarantine policy, Early procedures, Dealing with suspected cases and outbreaks, Movement control, Quarantine zone system, Biosecurity system, Compensation, Funding, Legislations and Law.

13.2.1 – Laboratory Diagnosis Results for AHS:

a – All sent samples to reference laboratories were negative for AHS.

b – All tested samples for imported and exported Equidae were negative for AHS.

c – All tested samples in national laboratories showed negative results for AHS.

d – During the last five years, several sero-surveys were conducted to investigate.

14 - Surveillance and early warning in the EDFZ

VS developed an early warning system to detect, respond to and control any suspected or emergent case in the EDFZ, these lead to improved awareness and knowledge of the distribution and behaviour of suspicion disease and infection, allow forecasting of the source and evolution of the disease outbreaks and the monitoring of the effectiveness of disease control campaigns, which all stakeholders are involved in this system.

The most important elements of subjected EWS in the EDFZ are:

* Passive disease surveillance is the routine gathering of information on disease incidents from sources such as requests for assistance from farmers, reports from field veterinary officers and livestock officers, submission of diagnostic specimens to laboratories and the results of laboratory investigations.

* Active disease surveillance requires purposeful and comprehensive searching for evidence of disease in animal populations or for verification that such populations are free of specific diseases.

* Training of Vet staff in early recognition of emergency diseases and collection and dispatching of samples.

* Farmers and breeding awareness and other publicity campaigns.

15 - Management and maintenance of the EDFZ

15.1 - Equine Movement Control

- MAAR has database for all Equidae populations in the EDFZ, in addition to immediate information and registration for any changing in animal census and movement.

-Horses are stabled usually in the farm or in the clubs, with the absence of grazing in big pasture because of small ownership of horses.

Legislation for the control of equine movement requires:

- * Approval of veterinary authority, horse breeder union, and Syrian breed pure Arab Horses Directorate in addition to consultant council in Syrian (SEF)
- * Laboratory analysis certificate
- * Donkeys and mules movement requires Approval of veterinary authority and Laboratory analysis certificate.

15.2 - Importation of horses

The VS has developed the “Veterinary Certificate for the Temporary Importation of horses into Syria to compete in the equestrian events, which the horses will transfer to the IQC for a post arrival quarantine period of three weeks.

While the local horses from the Surveillance zone will be recruited and transferred to the Core zone, after they have complied with the conditions of the “Movement Certificate for Horses into the EDFZ Core Zone from The Surveillance Zone of Syria”, which is equivalent to the conditions that have to be met by horses imported from outside the country in terms of testing and requirements for establishment and area of origin.

A police and customs posts are established on the roadside around the entry points of EDFZ.

VS staff in cooperation with these police posts control all transports of live animals, and all police posts has official veterinarians supervise the movement control into the surveillance zone (The entry points are located in: Jdidat Yaboius- Bloudan - AlTtal – Saydnaya – Qudsayah – Qatana - Daryaa districts)

VS in cooperation with club administration will assure the separation of the public from the horses which is considered as infection source, and the safety of both horses and people should also be considered as controls are put in place to ensure there is no contact between non-accredited personnel, or the public, and the horses.

Apply the movement of equipment, feed, medicines and vaccines controls and consider it as a major biological risk, and all that material should have a prior approval from VS.

VS has allocated two qualified vehicles for equine transportation, the vehicle and all equipment carried within them will need to be certified and should be cleaned and disinfected with an officially approved disinfectant according to vehicle cleaning protocol and treated with an officially approved insecticide immediately prior to the loading of the animal.

During the transportation, the equine had no contact with animals have not got the same certified health status and the equine will be transported directly from the premises of dispatch to the premises of destination.

The welfare and safety of the horse will take priority during the transportation procedures.

Horses transportation procedures from airport or arrival post to the IQC ,in addition to biosecurity measures are explained in (Annex 6 – Annex 7).



Photos (11 -12): Horses Transportation Vehicles

15.3 - The applied veterinary health procedures in Syria in the field of equines export and import:

The veterinary health conditions of horses' entry to Syria permanently or temporarily are:

1. The country of origin (and exporting country for racing horses) should be free from the following diseases: Vesicular stomatitis, African horse sickness, and Glanders according to OIE *Terrestrial Code*.

2. The accompanied official veterinary health certificate (Annex 5) should prove that the horses are imported from a region that is free from the following diseases:

- For 2 years from dourine and equine influenza.

- For 3 months from:

infectious metritis, Eastern and Western equine encephalitis, equine infectious anaemia, equine piroplasmiasis, equine rhinopneumonitis, equine viral arteritis, Anthrax, Venezuelan equine encephalomyelitis, endemic lymphadenitis, Japanese encephalitis.

3. The health certificate should prove that the horses have been subjected to the following tests with negative results during the quarantine period before shipment:

-AGID test for infectious anaemia.

-Viral parity for the communicable arteritis.

- Complement fixation test with solution 1/10 for dourine disease.

- Complement fixation test with solution 1/10 for Glanders disease.

- Complement fixation test or ELISA test for African horse sickness.

The horses intended for export should have been subjected to a quarantine period of 21 days at least.

The horses intended to be imported must be transported in means that have already been cleaned and disinfected with disinfectants that are officially approved in the country of origin. The transport means must be designed in a way that prevents liquids, bedding, and feed from spreading outside these transport means.

Athletic horses are permissible to enter temporarily from country of origin that differs from the exporting country.

- Veterinary health Quarantine procedures for imported horses:

The imported horses should be subjected to veterinary Health quarantine according to the following rules:

1- These horses should be examined in the border check point by the official veterinary health authorities and when the horses are healthy clinically and comply with the Syrian required conditions, the horses can enter Syria temporarily and they should be transported directly to the adopted quarantine by the Ministry of Agriculture and Agrarian Reform.

2- These horses should not be moved out of the transport means if the clinical veterinary inspection shows that some or all horses are infected with any infectious diseases or if these tests show no compliance with decree 301/T in 2006 and its modifications.

3- These horses that entered temporarily to the adopted quarantine should be kept there for 3 weeks and can be extended by the official veterinary health authorities to be sure that the horses are free from all infectious diseases according to decree 301/T in 2006 and its modifications.

4- These horses should be monitored by the responsible veterinary health authorities during the quarantine period to follow up the health situation of these horses and these authorities should apply the required relevant vaccination, and take samples to be tested to detect the following diseases: Glanders, Dourine Disease, equine infectious anaemia and African horse sickness.

5- Horses should not be permitted to enter Syria unless they are kept within closed, mechanical vehicles, and accompanied with the required official documents proving that these horses are passed by transit and accompanied with official health veterinary certificate, indicating that the country of origin or the regions that the horses are imported from/transit by, are free from any notifiable infectious diseases.

- Veterinary quarantine procedures on horses that intended for export:

In case of exporting horses, an application should be submitted to animal health department and animal health section to inspect the horses in the owner's farms, to confirm that they are sound from all diseases that affect equine by taking blood samples to be tested and to confirm their freedom of the following diseases:

-Glanders

- Dourine

- Equine infectious anaemia

- African horse sickness.

- According to the mentioned identification data in the passport of the horse such as (microchip) they should be subjected to vet quarantine for 21 days in the owner's farm or any other Equidae stables that is equipped with vet. Quarantine requirements and the most important condition is that prevention of any contact with other equine at all even though (sport participation, training).

During this period the horses should be vaccinated with influenza vaccine and then after 25-30 days with booster vaccine in case that is the first vaccination, or the routine vaccination of influenza every 6 months and all this information should be mentioned in the horse passport.

In case of the imported country needs the results of test of the mentioned diseases in the reference lab the samples should be sent by the animal health in the concerned province to the required lab after testing them in the directorate labs

The results of tests are valid for no later than 21 days otherwise they should be tested again in case of the required health vet certificate have not issued and the horses have not exported yet.

16- International Quarantine Centre

The IQC was newly constructed in Dimas's district in Rif Damascus province according to international standards and animal welfare requirements, and the Decision No. /150/ dated 5.6.2017 (Annex 2) arranged all functions and activities of this centre.

The IQC has 24 separated stables and surrounded by its own exercise space and has all amenities required for quarantine international standards. The station also offers a racecourse and a jumping and dressage arena for exercising, hence will offer the sport horses enough facilities to continue their training and exercising during the quarantine period prior to the Games.

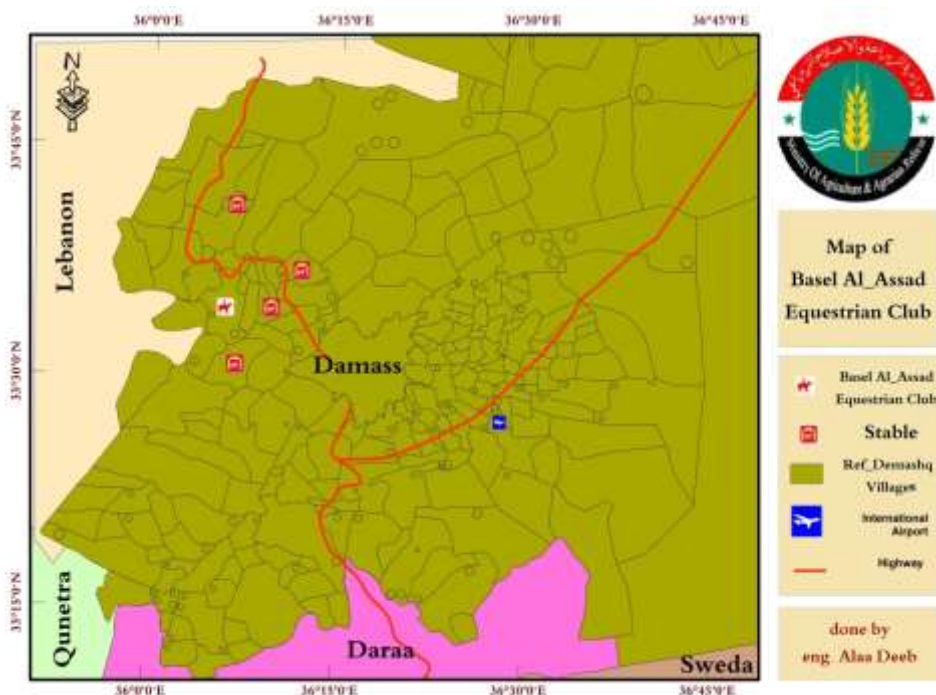
The station features a small pharmacy and small veterinary clinic in order to cater for any first aid in case of injuries or first examinations in case of suspected infectious disease.

The station staff consist of two veterinarians and 6 vet assistants in addition to grooms and farriers, and all the activities are under the management of the VS supervising.

The quarantine centre is protected against the insects and the intrusion of rodents, birds and small animals, and equipped with all necessary equipment for vector control and rodents' trap.



Photos (11 -12): International Quarantine Center



Map (6): Geographical location for Basel Al-Alassad Equestrian Club

17 - Vector's control

Vector control programme has been put in place which fogging equipment has been used to treat large open space areas with insecticide applied as fogging of tiny droplets which are nearly imperceptible and remain in the air until they evaporate, and Only registered disinfectants in Syria (Alpha-Cypermethrin, Permethrin, Deltamethrin) will be used to control the vectors, in addition for disinfection for pathogenic agent by using suitable disinfectant like virkon. The areas that will be treated are as follows: 1 day before arrival of horses, thereafter every 6 days around the stable insecticide will be used once a day in the morning. In addition, there are electric light traps installed in stables, clinic, quarantine centre and isolation stables.

Mosquito larvicides such as Temephos 1% (organophosphate) will be used to treat the open waterbodies in the cross-country area to reduce possible breeding sites of *Culicoides*.

Horse fly traps will also be installed around the stable areas and in the large open spaces of the cross-country area.

Other mitigating measures are the use of fans installed in each individual stable. The construction of the roof and the open frame building plan of the stables also allows for air to circulate freely and to create airflow. Proper cleaning of the horse boxes and common areas such as alleys between rows of horse stables will be strictly applied.

Rodent control will be applied in selected areas which were identified by the team that carried out the vector surveillance. A map with locations where rodent traps will be located before the arrival of the horses, has been produced and traps will be regularly controlled.

In addition, Local municipalities in collaboration with Directorate of Environment in the province will reinforce their routine insect control programme in the neighbouring residential area by spraying insecticides regularly and attending to stagnant water pools.

18 - Daily Recording System

The club administration has established strict recording system for observation and biologic metrics which an important element in early warning.

The recording system includes body temperature, feed consumption, water intake, and observation of behaviour.

19 - Roles and responsibilities in establishing and maintaining an EDFZ.

Syrian regulations clarified the functions, roles and tasks of all relevant authorities, organizations and stakeholders that included in establishing and maintaining the EDFZ according to OIE standards, and VS developed new manual to realize the tasks of all the partners.

All the involved bodies have a clear role, and they are working according to the adopted resolutions, and they named a focal point to arrange all the related matter under the supervision of VS and there are regular meetings

20 - Biosecurity

Bio security is one of the main principles for the maintenance of the EDFZ as free area from equine disease, which Syrian VS and the (SEF) have been worked to achieved bio security plan procedures in cooperation with relevant ministries: Ministry of Local Administration, Customs, Police etc.

The purpose of this bio security plan is to prevent the entry of diseased or and/or equipment into the (EDFZ) and more specifically to prevent entry of disease into the Bassel Al- Assad club and aims to prevent the possibility of disease spread within the venue itself through implementation of a strict sanitary protocols.

The plan is aimed at assuring and preserving the sanitary status of horses participating in the competition via establishment of effective bio security control from arrival until return to the respective country of origin. This will be achieved by strictly enforcing bio security measures for all horses, as described in this bio security plan, throughout their stay in the EDFZ. Control measures will be also applied to all medication and feed imported into the country.

All who access the stable area including athletes, grooms, veterinarians, team officials, workers and all other accredited visitors, will be informed about and provided with instruction of correct bio security procedures on arrival.

This document contains information regarding all aspects of bio security relating to facilities, horses, transport, medication and feed.

The Biosecurity Operational Manual Covers the Topics As the follows:

- * Biosecurity
- * Composting
- * Dealing with Suspected Cases of notifiable diseases
- * Necropsy
- * Vector Control
- * Isolation
- * Domestic Animals
- * Veterinary Clinic Facility
- * Security
- * Farrier
- * Contingency Planning
- * Guidelines for Stabling Area

20.1 - The Biosecurity Plan covers the following topics:

1 - Horse arrival: Horse transport and arrival by road from the Lebanese borders under the responsibility VS, (SEF), customs and police.

2 - Inspection on arrival: Upon arrival at the borders, veterinary quarantine staff will carry out jointly the Identity confirmation of the horse and a brief clinical check of the horses. The full veterinary on-arrival inspection will be carried out at in cooperation between the VS and (SEF).

3. Biosecurity of the venue: The Bassel Al- Assad club administration in cooperation with the VS overseen the sealing off by a perimeter fence secured against intrusion of rodents and small animals. They will also make available the work force operating in the stable to do the necessary chores of cleaning and disinfection.

The stable cleanliness will be overseen by Bassel Al- Assad club administration as well as the maintenance of wheel washes, human and horse footbaths and hand wash stations.

Access to the stable and other horse facilities will be strictly regulated and for accredited persons only.

Feed for horses can be brought in by the club administration, as long as it comes in sealed containers or bags, hay and bedding will be provided.

Stables will be regularly cleaned, manure removed and taken to the designated place, boxes will be regularly disinfected.

4- International Quarantine Centre: The Biosecurity of the IQC will be the subject of a separate Biosecurity and Operational Manual.

In summary, the same procedures of cleaning, disinfection and insect control will apply; horses will be kept separate per source and will be closely observed by taken their temperature twice daily and they will be put under control day and night.

5. Cleaning and disinfection: Cleaning guidelines for vehicles, stables and clinic facilities are deliberated in the Plan. In addition, the facilities will have to be regularly disinfected in order to reduce vectors.

6. Composting: Regular cleaning out of stables and removal of manure will be done and the material be deposited in a designated area, a safe distance away from the stables.

Animal Welfare: EDFZ management took in considerations all the welfare requirements in accordance with OIE standards and Horse Welfare Standards and Guidelines, which welfare of the horse is secured, and VS worked to assure horse safety and apply all welfare components and consider it as a priority.

21 - Contingency Plans

Strict observation for clinical signs of an infectious or contagious disease during the quarantine period or during the period of the event, the following precautions have been developed.

- At the RAQI: If a horse develops a fever or any other clinical signs suggestive of an infectious or contagious disease, it will be put under intense supervision in the isolation stables and if deemed necessary, blood and/or other biological samples will be taken, Samples will be examined at the CVL

If a horse has a minor injury, it will be transferred to the clinic on-site at the venue for treatment. If the injury is a major one or the horse needs colic surgery, it will be transferred to the Equine hospital at the Club.

- At the venue: If a horse develops a fever or any other clinical signs suggestive of an infectious or contagious disease, it will be transferred to the isolation unit on-site and put under intensive supervision. If deemed necessary, blood and/or other biological samples will be taken and examined at the clinic on-site and, if deemed necessary, samples will be sent to the laboratory in the club and then to CVL for further evaluation and confirmation of the clinical signs.

If a horse has a minor injury, it will be transferred to the clinic on-site at the venue for treatment. If the injury is major or the horse needs colic surgery, it will be transferred to the Equine hospital at the Club.

In the case of a notifiable disease is confirmed:

* Action will be taken on the infected premises to reduce the risk of the disease spreading, including movement restrictions.

- * Stamping out of all susceptible animals, bodies are incinerated.
- * Premises are then cleaned and disinfected with strict rules on restocking.
- * VS investigate where the disease came from and whether it has spread.
- * Further restrictions in a wider area may be introduced, depending on the risk of the disease spreading.

Dealing with Suspected Cases of notifiable diseases, and necropsy (Please see Annex 7, Paragraphs 3 - 4)

Two qualified horse ambulances are available in case transfers from either the Quarantine Station or the venue to the Equine Hospital are required, and if the injury is fatal, to be humanely euthanized.

22 - Sanitary Control

Sanitary protocol (Annex 8) will be performed in cooperation between VS, SEF and specialists' team in Basel Al-Assad Club.

Protocol covers the most important topics as follows:

- * Health Certification
- * Horses Arrival
- * Horses Reception
- * Vehicles
- * Access to Stabling Areas
- * Guidelines for personnel accessing the barns.

23 - Reporting procedures

VS issued operational manual for arrangement of all procedures related to EDFZ and detected the tasks, functions and the responsibilities of relevant authorities.

EDFZ is under the responsibility of VS which is considered the manager of coordination and harmonizing the relations between the bodies and detected the roles and actions responsibility at each level, which the put operational manual arranged the communications methods and reporting and notification system through flexible hierarchy regime either vertically, diagonally or from the base, and ease in dealing.