OIE EXPERT MISSION TO SOUTHERN AFRICAN COUNTRIES
(BOTSWANA, NAMIBIA, SOUTH AFRICA, SWAZILAND)
27 October to 8 November 2013

Report on the visit to Swaziland (4-5 November 2013)

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1. Introduction

During 2006, the OIE Scientific Commission for Animal Diseases (the Scientific Commission) identified the need to conduct expert missions to OIE Member Countries having been allocated official disease status by the OIE, to monitor compliance with the requirements of the OIE *Terrestrial Animal Health Code* (*Terrestrial Code*) for the maintenance of their given status for a particular disease. With the approval of the Director General of the OIE, several such missions have already been successfully conducted. During 2010, the Scientific Commission identified the need to conduct a mission to Member Countries in southern Africa which unfortunately had to be postponed more than once following outbreaks of foot and mouth disease (FMD) in some of the Member Countries that had to be visited. During the February 2013 meeting of the Scientific Commission, the Director General of the OIE was requested to support a mission during 2013 to selected southern African Countries.

A meeting was held during the 81st General Session of the OIE in May 2013 between members of the Scientific Commission and the OIE Delegates of Botswana, Namibia, South Africa and Swaziland informing them of the wish of the Scientific Commission to conduct an expert mission during the latter half of 2013. The consent expressed by all the Delegates present at the meeting to such a mission was acknowledged and confirmed in a letter from the Director General to the Delegates informing them of the OIE policy for such missions and the financial and logistical responsibilities of the OIE and Member Countries respectively for conducting such missions. The Delegates were also invited by the Director General to submit proposals for a tentative itinerary for the mission. Following the subsequent finalisation of the itinerary and terms of reference of the mission, the Delegates of Botswana, Namibia, South Africa and Swaziland were provided with the final itinerary and terms of reference of the mission in a letter from the Director General on 26 July 2013. They were also informed that the expert mission will consist of Dr Gideon Brückner, President of the Scientific Commission and leader of the mission; Dr Kris de Clercq, Vice President of the Scientific Commission; Dr Howard Batho, OIE expert consultant and Dr Neo Mapitse, OIE Sub-Regional Representative for Southern Africa in Gaborone, Botswana. Dr Batho was just prior to the mission replaced by Dr Alessandro Ripani from Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale" in Teramo, Italy as result of the unavailability of Dr Batho.

2. Terms of Reference of the mission

The following terms of reference were proposed by the Director General of the OIE and agreed to by the respective Member Countries:

General objective:

To assess the implementation and compliance with the relevant provisions of the *Terrestrial Code* to ensure the maintenance of FMD free status and, in the case of South Africa, to assess the situation following the suspension of its FMD free status with effect from 25 February 2011.

Specific objectives:

- To verify that the surveillance for FMD and FMDV infection is in operation in accordance with Chapter 8.6. of the OIE *Terrestrial Code*;

- To verify and assess surveillance strategies and results for the maintenance of FMD control zones (current infected and containment zones where applicable);

- To verify that regulatory measures for the early detection, prevention and control of FMD are implemented and in full operation;

- To verify that the system for preventing the entry of the virus (including the control of the movement of susceptible animals) into the FMD free zone is effective;

- To verify that the laboratory and diagnostic activities relating to FMD are on a par with the provisions of the relevant Chapters of the OIE *Terrestrial Manual*.

Locations/Facilities to be visited:

- Farm(s);
- Dipping tanks where surveillance and vaccinations are carried out;
- Slaughterhouse(s);
- Border inspection and control point(s) between the free zone/infected zone/containment area and the rest of the country;
- Systems of movement control and animal identification systems;
- Veterinary Services at central and local level;
- Relevant laboratories – Botswana and South Africa;
- Any other relevant locations/facilities.

3. Itinerary of the mission

The mission was conducted from 27 October to 8 November 2013 giving the expert team only 13 days to visit four countries and travelling vast distances across country borders and within the respective countries. The mission could however, in spite of intensive travelling, succeed in visiting the critical points related to FMD control, maintenance of official disease status and diagnosis due to the excellent logistical arrangements of the Member Countries and was thus satisfied that the purpose of the mission in all 4 countries was accomplished.

DATE	PLACE	ACTIVITY	REMARKS
SUNDAY: 27/10	Experts arrive in Windhoek, Namibia	Book into hotel 16h00 – 18h00 Briefing meeting with Delegate and personnel on mission	Accommodation Windhoek
MONDAY: 28/10	Team divides in 2 Groups: <u>Team 1</u> (De Clercq and Mapitse) Travel by air to Katima Mulilo <u>Team 2</u> (Brückner and Ripani) Travel by air to Oshakati/Ondangwa	 Visit border post/export Inspect FMD Control. Travel by road to visit border area and	 Accommodation Katima Accommodation: Ondangwa

		FMD control area	
TUESDAY: 29/10	Team 1: Visit Katima export abattoir and border post Team 2: Visit Oshakati abattoir	Abattoir and border post Abattoir and Protection zone border and border post at Oshivello	Both teams travel back to Windhoek by Air. Final briefing with Delegate. Accommodation Windhoek
WEDNESDAY: 30/10	Travel by air to Botswana – via Johannesburg Afternoon: Meeting with Delegate on mission in Gaborone Travel to Francistown	Briefing and planning of mission	Morning flight from Windhoek via Johannesburg to Gaborone) Travel by air to Francistown at 1730 Accommodation Francistown
THURSDAY: 31/10	1.FMD containment area 2.Visit a border with Zimbabwe by road 3.Travel to FMD protection zone (zone 7)	Assess FMD containment area border area Botswana/Zimbabwe	Accommodation Francistown
FRIDAY: 1/11	1.Travel to Gaborone by air at 0820 2. Visit FMD laboratory	Assessment of FMD laboratory	Accommodation in Gaborone
SATURDAY:2/11	Debriefing meeting with Delegate and supporting team from Veterinary Services		Travel by air to Johannesburg.
SUNDAY: 3/11	Travel by air to Nelspruit	Briefing meeting with Delegate and team at Nelspruit and veterinary personnel from Mpumalanga province	Overnight Hazyview
MONDAY: 4/11	Visit Mpumalanga FMD Control Area, Kruger national Park (KNP) Fence and visit dipping tank in area	Visit dipping tank in FMD Control area and western KNP control fence and Komati border post with Mozambique. Border fence between Swaziland and	Mission team met at Swaziland/ South Africa border (Mananga) by Swaziland Veterinary Service Briefing meeting with Delegate and Veterinary officials

		South Africa Travel to Mozambique/Swaziland borders at Mananga and onwards to Swaziland	of Swaziland at Simunye Overnight at Simunye, Swaziland
TUESDAY: 5/11	Travel to two dipping tanks and visit Swaziland/South Africa border fence at Lomahasha, Redline area and border post. Visit State veterinary office and proceed to Lavumisa/Goleta border post	Visit dipping tanks, border fence and border posts, State veterinary office and control posts on redline and international fences	Meet with South Africa officials at Golela border post, visit border post and South Africa /Swaziland border fence. Overnight at Jozini
WEDNESDAY: 6/11	Travel to Ndumo and Tembe Game parks, visit fence areas and international fence with Mozambique	Assess fence control and border control and surveillance at dipping tanks	Overnight Jozini
THURSDAY:7/11	Visit South Africa /Mozambique fence and South Africa FMD control area/protection zone and Kosi Bay control post. Travel to Richards Bay	Visit border area and FMD control posts	Overnight Richards Bay
FRIDAY 8/11	Travel by air from Richards Bay to Johannesburg and by road to Pretoria	Visit FMD laboratory Final briefing with Delegate.	

4. Acknowledgements

The OIE mission team wished to sincerely thank the OIE Delegates of Botswana (Dr Letlhogile Modisa), Namibia (Dr Albertina Shilongo), the Republic of South Africa (Dr Botlhe Michael Modisane) and Swaziland (Dr Roland Xolani Dlamini) and their staff for excellent logistical arrangements and support to enable the OIE mission team to conduct the mission in a most satisfactory manner. What was especially appreciated was the transparency demonstrated in all the Member Countries and allowing the mission team access to all the relevant information to make an informed assessment. The mission also acknowledged with sincere appreciation that in all four countries visited, the OIE Delegates and senior officials of their Veterinary Authorities, accompanied the mission during the full time of the visit in each respective country, thereby demonstrating the commitment of the Member Country in supporting the OIE and the value attached to the purpose of the mission. The Director General of the OIE was especially thanked for mandating the mission and making available the excellent services of Dr Daniel

Chaisemartin and his team to assist with the international travel arrangements and logistical needs of the expert team.

5. Findings on the Expert Mission to Swaziland

Introduction

The OIE mission team was met and welcomed at Mananga Border gate by the delegation from Swaziland led by the OIE Delegate, Dr Roland Dlamini. A briefing meeting was organised at Simunye which is on the North Eastern side of Swaziland.

The information used in this report is based on the presentation made by Swaziland at the briefing meeting, documents provided (2012 Annual Report, Department of Veterinary and Livestock Services, Manzini), visits and interviews of the personnel met at various places during the mission, documents collected during the mission and other documents that were provided by the Director of Veterinary Services (DVS) after the mission.

5.1. *Current FMD situation*

Swaziland is recognised by the OIE as a FMD free country where vaccination is not practised with the last reported outbreak of FMD in 2001. FMD is a notifiable disease in accordance with the Animal Diseases Act No. 7 of 1965.

5.2. *Control programme*

Swaziland has invested on a control system of sanitary cordon fences and dipping tanks to reduce the disease threats from its neighbours. The “frontier cordon” runs from the north-western part of Hhohho Region as a double fence separating Swaziland from South Africa and runs in the eastern part of Lubombo Region as a boundary with Mozambique. The southern Shiselweni Region is separated from South Africa by a single cattle fence. The south eastern part of the Lubombo and Shiselweni Regions is separated by a mountain range (Lubombo Mt.) providing physical separation from neighbouring South Africa.

The “red line” sanitary cordon fence runs through the Lubombo Region for 138km from Mambane in the north to Managa in the south separating the protection zone from the rest of the free country. This is a double fence which, together with other frontier fences, has been extremely effective in the control of FMD.

There is a system of quarantine facilities that are government owned and/or privately run but all under the supervision of the DVS. These are used for control measures relating to exports or retrieved cross-border movement of livestock that either stray or are moved illegally across the border. The Veterinary Services (VS) are capable to improve surveillance of animals held in the official quarantines as it is the case in the very well controlled border quarantine posts.

The control programme is also based on a movement control and permit system. The DVS is mandated by national legislation to impose a movement restriction on a dipping tank area on suspicion of disease. The Swaziland Livestock Information and Traceability system (SLITS) offers the decision-making information to the Director to place a dipping tank under quarantine and to prevent the issuance of electronic Stock Removal Permit (SRP) from or to that dipping tank.

The VS have identified and mapped high FMD risk areas from its neighbours. The ever present threat is from stray buffalo of unknown status in the northern part of the country. The VS have a contingency response plan that was showed to be successful in dealing with threats of suspect FMD incursions. The threats of February 2011, April 2012, June 2012 and February 2013 were dealt with effectively and did not develop into actual outbreaks of the disease. The DVS reported to the mission team how effectively they dealt with stray buffalo that were found between the double cordon fence. These were located and dealt with within three hours. This showed the preparedness and rapid response capacity of the DVS to maintain the FMD free status of Swaziland.

Though ear tagging was launched in 2012, individual animal identification was introduced in Lomahasha area following the outbreak of FMD in South Africa in 2011. The purpose was to ensure separation and identification of Swaziland cattle from South African cattle. This allowed for early detection and response and Swaziland maintained their FMD free status.

The principal legislation for animal health control is the Animal Disease Act 7/1965 which mandates the power to develop specific regulations for specified diseases including FMD, monitoring and reporting of diseases, imposition of quarantine measures etc. The Livestock Identification Act 13/2001 provides for identification and traceability of cattle and small ruminants. The computerisation of the national traceability system that started in 2009 is under this Act.

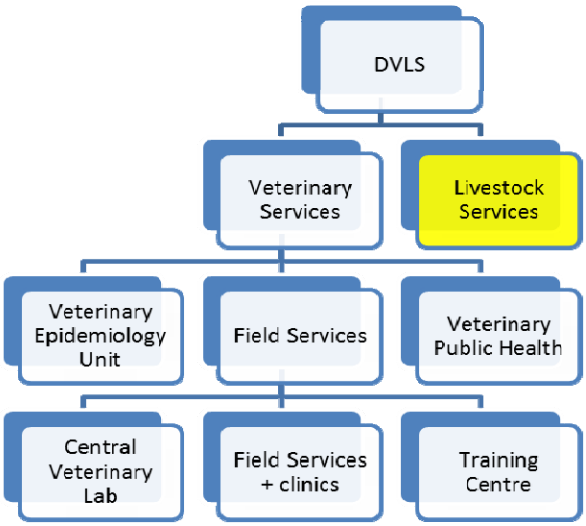

Figure 1: Organisational structure of the Department of Veterinary and Livestock Services

The epidemiological unit for FMD control in Swaziland is a dip-tank area which may be in a communal or title deed land (TDL) area that may have definite boundaries such as farms or not distinct boundaries commonly in Swazi National Land (SNL). This defines the geographical confines of particular animals and each dipping tank on average covers 8km radius. Structures (dip-tank) for inspection, dipping and treatment of sick animals are provided and maintained by government, private farms or in collaboration with the communities. There are about 880 dip-tanks distributed across Swaziland, 40% of which are privately owned.

Cattle are required by law to be registered at a dip-tank and each farmer is issued with a stock card that captures the name of the farmer, kraal number, dipping tank number, date of event (inspection, dipping, vaccination and castrations etc.), total number of animals

inspected, calves born, absentees, reconciliation of movements etc. The Animal Health Inspectors (Veterinary Assistants) endorse all these activities on the card during compulsory dipping days and record the information in the Dipping tank Register. These inspectors who are under the responsibility of the Regional Field Services may oversee up to four dip-tanks in their area. A dip-tank committee (constituted of local farmers) is supervised by a dip-tank assistant. The dipping tank assistant who is employed by the VS reports to the Animal Health Inspector. The dipping-tank committee can function even in the absence of the dipping tank assistant but is well aware of its obligations to report any disease suspicions.

5.3 *Application of zonal strategy*

Swaziland is recognised by the OIE as a FMD free country where vaccination is not practised. Swaziland created a protection zone separated from the rest of the free country by a double cattle cordon fence 100 metres apart and bordered on the protection zone by the so-called red line fence. This fence runs through the Lubombo Region for 138km from Mambane in the north to Managa in the south (Figures 2 and 7).

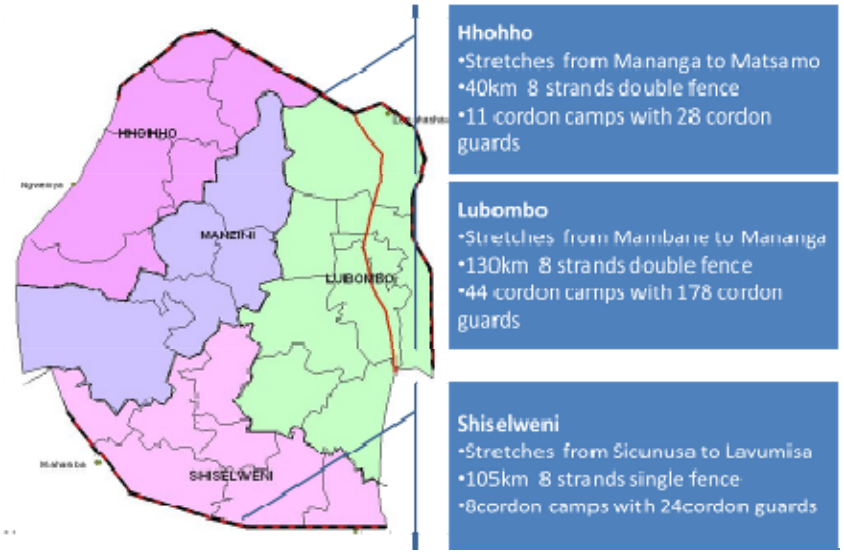

Figure 2: Swaziland sanitary cordon fences

Verification in the field of the implementation of the zonal strategy: 5 November 2013

The mission team, in presence of the Swaziland Delegation, visited the red line internal fence and the international border fence between Swaziland and Mozambique, and between Swaziland and South Africa (Figure 6). The sanitary cordon fences were in excellent condition and are well maintained. The maintenance teams (cordon guards) are well accommodated and spread alongside the fences. In discussion with one of the cordon guards, it was explained that they patrol 5km each way from their allocated accommodation site along the fence. The south eastern section of the boundary between South Africa (bordering the Kwa-Zulu province of South Africa) and Swaziland is separated by the Lubombo Mountains which constitutes an effective and non-permeable physical barrier.

The mission team met the staff of the VS (cordon guards and veterinary assistants who supervise them) at various check points along the red line. These were at the Maphiveni

and Lukhola check points and Camp. Though the two different areas separated by the red line have the same FMD free status, all movements of FMD susceptible animals are recorded at the checkpoints by the cordon guards or inspectors. The veterinary inspectors check the registers and endorse the entries each week and this is facilitated by the requirement that each week on Fridays, the Veterinary Assistants have to visit their regional offices to submit the necessary records including farmer requests for stock removal permits. The weekly endorsements were verified by the mission team at Maphiveni and the Veterinary Assistant stated that he checks for incorrect entries and ensures entries are done properly. In the case of wrong or incomplete entries he provides the needed guidance.

5.4. *Surveillance*

FMD surveillance is centred on the dipping tank system and combines passive and active surveillance. Passive surveillance relies on farmers' report and an active search from the animal health officers who detect cases at dipping tanks during compulsory dipping and inspection (for cattle, sheep and goats) or at farms during routine inspection and extension visits (for pigs). Surveillance involves regular inspection of cattle, sheep and goats at dipping tanks (7/14 days in summer and 14/28 days in winter). This may also vary according to agro-ecological zoning. Surveillance is extended to export abattoirs, quarantine camps and a sentinel herd for buffalo surveillance. On suspicion of FMD the farmers can report to the dipping tank assistant or directly to the Veterinary Assistant who in turn reports to the regional veterinary officer. Therefore, a clear chain of command in disease reporting and early warning involving farmers, veterinarians and veterinary para-professionals is established. This was verified at Lomahasha dipping tank (No. 204) where fortnightly (every 2 weeks) inspections and dipping are recorded on the stock card system and dipping tank register. The dipping tank secretary who was interviewed demonstrated the existing link between the dipping tank committee and the VS. The trust developed between the both of them facilitates disease reporting and access of livestock to clinical care provided by VS.

Active surveillance is specific and risk based, and involves cattle, sheep, goats and buffaloes (*Syncerus caffer*). "Mouthing" of high risk areas is often triggered by perceived threat and blood samples collected for serological analysis. Serology is applied for FMD as targeted for the absence or presence of the disease in a given population and is often applied to high risk areas. Following the incursion of stray buffalo from Mpumalanga, South Africa, in June 2012, the DVS identified Lomahasha as a population at high risk. A movement ban was imposed and the VS inspected (mouthing) cattle, sheep and goats and took blood samples from cattle (based on a sample size calculation) for serological analysis (Annex 1). The conclusion was that there was no clinical case of FMD and was confirmed by negative serological results.

5.5. *Diagnostics*

The mission did not visit the laboratory but was informed that the Head of the Central Veterinary Laboratory (CVL) is a veterinarian and responsible for all diagnostics. The CVL does not test for FMD as yet but plans are to introduce LP-ELISA. Samples are sent to the Onderstepoort Veterinary Institute (OVI) in South Africa mainly for LP-ELISA and to the Botswana Vaccine Institute (BVI) in Botswana for virus neutralisation tests. Therefore, the VS of Swaziland have access to network of OIE Reference Laboratories within the region to send samples for laboratory confirmation and identify FMD viruses that are known to exist within the region.

5.6. *Vaccination Programme*

Swaziland does not practise FMD vaccination within its boundaries.

5.7. *Movement control including animal and farm/establishment identification*

Animal movement is controlled through a permit system issued by the D VS as mandated by the Animal Disease Act. This is also extended to cross-border animals and animal products, including wildlife. For local movement, a stock removal permit (SRP) is applied; Import permit and export certificate are applied for cross-border movements. All livestock movement into and out of a dipping tank area requires a SRP obtained from the area (manual) or Departmental Sub Regional Office responsible for that particular dipping tank.

Before removal, Veterinary Assistant of the dipping tank inspects the animal(s) and records details to issue the SRP. The details can also be deposited at the office for the electronic SRP issued using the SLITS. The SLITS records dipping tank numbers of origin and destination, kraal numbers, farmer's name, animal particulars and official identification marks (brand and tag number). The permit is valid for 7 days to effect movement and the farmer has to submit the used permit to DVS for system validation of movement within another 7 days or there are penalties. The Veterinary Assistant at destination, which may be the abattoir, endorses the permit(s) and enters the stock that was moved into the farmer's stock card and dipping tank Register. This system was well demonstrated on the computer based SLITS and the dipping tank registers at the sub regional office visited.

Examples of movements into Siteki dipping tank area No. 243, following a manual permit and an electronic permit were verified by the mission and the details of the manual permit were followed up on the computer based SLITS. This showed that manual permits were captured on the system (dipping tank manual register and electronic) as stated by the DVS. The DVS showed evidence of an effective national traceability system that can be used to verify all cattle movements and dipping tank data. An improvement to SLITS is planned to link the movements to a geo referencing system of dipping tanks.

SLITS is a computerized database for registration of animals, holdings and movement controls and is compulsory. The system requires each establishment to be registered as a kraal under a dipping tank. Each farmer or kraal has a stock card on which all events are recorded. There may be more than one famer/owner at each kraal. Each dipping tank is allocated a number e.g. Lomahasha 204 and all cattle carry mandatory primary and secondary analogue ear tags with a number identifying the dipping tank of origin and a serial number allocated to each bovine animal (Figure 4). Therefore, all cattle at a particular dipping tank will have the same (herd number) depicting that dipping tank area making movements between herds easily traceable.

Cattle identification and registration

The SLITS was effectively launched in 2012 with the mandatory ear tagging of all cattle in Swaziland. All ear tags allocated as per farmer order are entered on the main dipping tank area register and the same on the electronic database. This system links all cattle to the dipping tank even following authorised movements. Each ear tag number will have corresponding owner details such as national identification number, animal details such as date of birth, colour, gender etc. Figure 3 shows the details captured on the SLITS.

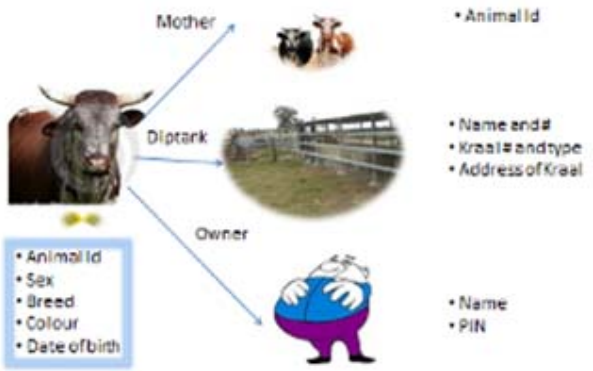

Figure 3: Details required to complete cattle identification and registration

A dipping tank may cover a number of kraals. The farmer stock card which stays with the farmer, records details of the farmer, livestock census at any event such as vaccination, kraal number, new born calves, deaths etc. Any activity including livestock movement for each establishment (stock card) is recorded on the dipping tank register. Outgoing livestock movements are recorded on the back pages of the register and incoming movements are recorded as with all other activities in the register. Movements recorded include permit number whether manual or electronic and this number can be used to trace the movement on the computer based SLITS.

Figure 4 shows the mandatory analogue double ear tags that are used on Swaziland cattle. The primary tag (larger) is placed on the left ear and the secondary tag (round) on the other ear. Imported animals are identified by the characters "CI" instead of the dipping tank number. The serial code is allocated to one animal and cannot be reused. The mission team saw cattle bearing both ear tags at Lomahasha dipping tank. The cattle also had a shield brand mark on the left shoulder. A number of animals had a number 204 branded on the left thigh. These are mandatory identification requirements.

Figure 4: Double analogue ear tags

The SLITS modules are: dipping tank areas, kraal and kraal owners, dipping events and animal register, livestock movements, livestock imports, livestock exports, slaughter, distribution of tags and brands register. These cover the scope of what is intended by the DVS and the Delegate stated that the system serves the intended purpose.

Animal identification and traceability was identified as a very effective tool in Swaziland`s FMD control. The systems implemented were shown to comply with the provisions of the *Terrestrial Code* as all movements were sanctioned by the VS with support from a legal instrument (Livestock Identification Act 13/2001). The VS have established procedures for animal and establishment identification and registration. All

new introductions into an establishment are recorded and traceable as was seen by the team at Siteki regional veterinary office. The VS have the power to restrict livestock movements and put the offending dipping tank area under quarantine using SLITS. The Delegate stated that one dipping tank was placed under movement restriction following a bluetongue outbreak.

There are adequate controls in the SLITS for all users to avoid any tempering and the system could be queried to link the users and the actions performed on the system. There is an official procedure for acquiring and registration of animal identification devices. The mission team concluded that the SLITS and the record keeping met the provisions of the *Terrestrial Code* on animal identification and traceability.

5.8. *Border and border post control*

Swaziland shares 13 border ports of entry with South Africa (11) and Mozambique (2). The international airport is another port of entry. Only two ports of entry (Ngwenya/ Oshoek, Lavumasha and Mahamba) are designated for international trade of animal and animal products. For Mozambique, the Lomahasha and Mhlumeni border posts may be used for other stock except for FMD susceptible animals. Staff of the VS is posted permanently to these five border posts to inspect imports and documentation with the assistance of customs officials before allowed entry into Swaziland. Imports are observed to be recorded on notebooks with description of the consignment, quantity, import permit and certificate numbers and country of origin. Confiscations were also detailed though at the Lomahasha which was mostly plant materials. The reasoning was that travellers from Mozambique were well aware of the restrictions on importation of animal and animal products from FMD susceptible animals and did not take any chances to import these. The team saw records of "treat and release" that was applied to some imports (mainly plant derived material).

The staffs operating at the borders including the Cordon Guards was very visible on uniform clearly labelled veterinary services. At Lomahasha there was a big public notice board stating out clearly prohibited items into Swaziland from Mozambique (Figure 5).

Figure 5: Public notice board at Lomahasha Border Entry Point with Mozambique.

However, it is unclear which zone the traveller is being referred to (border area or the zone that is being entered into) as there is reference again to the control point. A more updated and clear instruction is needed.

The mission team was informed that Swazi cattle that stray into Mozambique are easily identifiable by national brand (shield) and ear tags. Normally the Police will inform the VS immediately and request for clearance to re-import the animals. These are repatriated and quarantined at Maphiveni for 30 days. They are inspected (mouthed) on entry and exit and released if they show no clinical signs of FMD. If they are already returned and mixed with other Swazi cattle before inspection, the entire population at the dipping tank

is placed under quarantine. This may be extended to adjacent dipping tanks depending on the epidemiological investigations.

Figure 6: Swaziland/South African border fence

Figure 7: Red line fence

5.9. *Current cooperation activities/initiatives with neighbouring countries/region*

Swaziland regularly attends regional and international meetings to exchange information on FMD. Swaziland is also actively participating in South African Development Community (SADC) and the African Union activities and meetings. There is regular information exchange between the South African Mpumalanga Provincial and Swazi VS regarding buffalo movements and threats.

5.10. *Farmer/political perception and support*

It was evident that the VS collaborates and receives a lot of support from government and compliance from the farmers. The trust developed between them is strengthened by the government through the veterinarians and veterinary para-professional provision of clinical services treating sick animals belonging to farmers. The need to continuously dip against external parasites ensures a continuous farmer-VS contact and building of relationships through the system of dipping tank areas.

6. Conclusions and recommendations

6.1. *General observations*

The mission team was impressed with the FMD controls, procedures and measures in place to maintain Swaziland free from FMD, in accordance with the requirements of the *Terrestrial Code*. Though Swaziland continues to face the threat of FMD from its neighbours, the mission team is confident that the Swaziland VS have the capacity and commitment to maintain the status of FMD free country without vaccination. Swaziland has maintained this status since 2001 giving a clear evidence of the effectiveness of the commitment to apply their national FMD control strategy. The movement control systems, surveillance activities and the identification and traceability systems provide all the necessary measures *as per* the provisions of the *Terrestrial Code* to allow Swaziland to maintain its FMD free without vaccination status.

6.2. *Specific recommendations to Swaziland*

- The mission team suggested that some improvements on the SLITS and extension of the active sero-surveillance to other risk area are required. Currently active surveillance is risk-based and is focused in the high risk areas.

- Documentation of the national FMD control programme will add value and is recommended.

6.3. *Recommendations to the OIE*

The mission team to Swaziland has verified that FMD control measures implemented to prevent the entry of the FMD virus into Swaziland including surveillance, animal identification, movement control and import/export control are in compliance with the relevant provisions of the *Terrestrial Code* to ensure maintenance of the FMD free status.

6.4. *Summary of the findings and recommendations*

Critical areas evaluated	**Findings**	**Observations/ recommendations**
3.1 - Current FMD situation – summarised overview	An updated epidemiological situation was provided demonstrating that Swaziland: - is in compliance with the relevant provisions of the *Terrestrial Code* to ensure the maintenance of the FMD free status and; - the control measures applied in the free "protection zone" and in the rest of the country were considered satisfactory by the mission team for Swaziland to use this zone to effectively limit the spread of FMD in case of incursion.	
3.2 - Control programme	The control measures in place are in line with the requirements of the relevant provisions of the *Terrestrial Code* and it was proven effective as evidenced by the historical effective control of FMD and maintenance of FMD freedom. The staff showed professional and technical competence to effectively control FMD.	Document the FMD control Programme
3.3 - Application of zonal strategy	The application of the zonal strategy in Swaziland was found very well organised and the physical separation between different zones– through fences and check points – was found very efficient. The zoning enables maintenance of a FMD free status.	Public notice boards on entry into the free "protected zone" were out dated and need revision or removal
3.4 - Surveillance	General surveillance is in place and in line with the relevant articles of the FMD chapter of the *Terrestrial Code*.	

	Active surveillance is targeted and risk-based.	
3.5 – Diagnostics	The CVL has access to OIE Reference Laboratories for FMD. The diagnostic activities are in line with FMD Chapter of the *Terrestrial Manual*.	
3.6 Vaccination	Swaziland does not practice FMD vaccination.	Ensure no vaccinated animal from neighbouring countries enters Swaziland.
3.7 Movement control including animal and farm/establishment identification	Effective movement control using sanitary cordon fences and permits is in place. There is a national system in place that can perform animal and establishment identification and registration which combines manual and electronic databases. There is effective traceability of all movements including in case of outbreaks as required for disease control.	Implement geo referencing and mapping capability of SLTS for animal movements. The public notice boards along the main highways at the “red line” need to be updated or removed.
3.8 Border and border post control	The border inspection point staff visited at the border between Swaziland and South Africa and Swaziland and Mozambique were visible and identifiable as VS staff. They were well informed on their responsibilities and their relationship with Customs Officers. Proper controls placed on imports were seen and effective. Confiscations and treat and release were implemented showing a good understanding of the controls. Public information on large notice boards was in place. There was evidence of regular recording on the registers for confiscated products.	Maintain record keeping of the actions/disinfections in the register and update the current public information/ warning signs.
3.9 Current cooperation activities/initiatives with neighbouring countries/region	There is cooperation between South Africa and Swaziland especially on cross border issues.	Strengthen the cooperation and collaboration with neighbouring countries on cross border issues. Exchange information to improve FMD preparedness and maintain free status.
3.10-Farmer/political	High level of commitment of	Continue involving

perception and support	Government and farmer support and compliance were noted and appreciated	high level Authorities in this respect as matter of priority. Improve communication with farmers and other stakeholders to maintain compliance and disease reporting.

Annex 1: FMD threats and response since 2010

	25 FEB 2011	**12 APR 2012**	**20 JUNE 2012**	**12 FEB 2013**
Risk	FMD outbreak in KwaZulu-Natal	Stray buffalo from KwaZulu-Natal **Vimmy Ridge**	Stray buffalo from Mpumalanga **Nkalashane**	Stray buffalo from Mpumalanga **Volinde**
Areas risk	Lubuli, Lavumisa	Lavumisa	Lomahasha	Lomahasha , Mayiwane, Mliba
Response	Movement controls	Movement controls	Movement controls	Movement controls
	Surveillance	Surveillance	Surveillance	Surveillance
	Patrols at the frontiers fences Cordon guards+ Umbutfo Swaziland Defence Force	Tracking by game rangers, Royal Swaziland Police + owner	Patrols at the frontiers and inner fences Cordon guards+ Game Rangers	Patrols at the frontiers fences Cordon guards+ Game Rangers
	Individual cattle identification		Awareness creation	