Living Regionalization
South Africa primarily uses regionalisation as a disease management tool, with the exception of AHS – which is an export driven activity.
Introduction

South Africa has been living with regionalization:

AHS: 1994
FMD: 2002
ASF: 1991
Legal Framework

Animal Diseases Act (Regulations)

OIE guidelines
The rest of the country is considered endemic of the disease.
The free zone, the Cape Town Metro, has been designated a AHS free zone for purposes of trade of live horses. This was accepted by the EU in 1994.
Immediately bordering the free zone is the surveillance zone, followed by the protection zone.
There border between the Surveillance and the Protection zones is a mountain range (to a very large extent).

**Vaccination:** It is mandatory by Law to vaccinate all horses, annually in the country against AHS. Vaccination in the free and surveillance zone is only by permission, and only limited to the period of the year with low vector activity (1\textsuperscript{st} June to 30\textsuperscript{th} October).

**Surveillance:** Surveillance in controlled area relies on 4 types of surveillance:

- **Clinical surveillance** – it is mandatory for all veterinarians and horse owners to report any sick horses in the control area with any signs suggestive of AHS for further investigation and laboratory confirmation
- **Sentinel surveillance** – sentinels are strategically placed in the controlled area for either serological surveillance (unvaccinated horses) or agent identification (vaccinated horses).
- **Wildlife surveillance** - equid wildlife has blood samples taken for sero surveillance during any opportunistic capture/veterinary procedure.
- **Vector surveillance** – traps are places strategically in the surveillance zone, as well as around the pre-export vector-protected quarantine station. These are to monitor the activity of culicoides in these respective areas.

**Animal ID:** By law, all horses in the area must be micro-chipped and must have passports.

**Movement control:** Movements into and within the controlled area are done by permit considering all relevant epidemiological information, such as vaccination history, any cases reported, etc. During the low vector season, horses can move directly into the controlled area; but have to do a stop over quarantine in a low vector area or vector protected quarantine during the AHS season/high vector activity season (February to June)

Movements into the free zone for equestrian events is allowed for a day, provided they travel 2 hours after sunrise and are back 2 hours before sun set.

Movements of other equids is into, or within the controlled area is only allowed in July and August.
the control of culicoides from infected zone to the controlled area is impossible and impractical.
FMD
South Africa is zoned by the OIE as free (without vaccination) except for the Kruger National Park (KNP) complex and Ndumo and Tembe reserves (in Kwa-Zulu Natal (KZN)).

To protect the integrity of the free zone, a Protection zone with vaccination (closest to infected zone) and a Protection zone without vaccine (next layer away from the infected zone) were established. The protection zone is outside of the free zone so any reported cases in the protection zone does not affect the status of the free zone.
By law, all premises with buffalo must be fenced off, and this includes the KNP complex and the two game reserves in KZN.

The next layer of protection is the protection zone with vaccination and without vaccination – this creates a buffer between infected and free zones.

**Animal ID:** All cattle in the protection zone are identified with different colour tags; these tags serve also as individual identification.

**Movement control:** Live animals are not allowed to be moved from infected and protection zone into the free zone unless going for direct slaughter at a designated slaughter house. Movements within the different zones within the control area are only done by state veterinary movement permit. Movements out of the protection zone without vaccination can only be moved into the free zone following quarantine and testing with favourable results.

**Surveillance:** Passive surveillance in the free zone is continuously carried out – by law, any movement of buffaloes in the free zone from farm to farm is done following veterinary procedure and permits which includes testing for FMD with negative results (**there are no FMD positive buffaloes in the free zone**). Also as ongoing passive surveillance are tests done for export purposes as well as 6 monthly tests done for maintenance of pig compartments.

Active surveillance carried out periodically.

Clinical surveillance is carried out in the protection zone with vaccination weekly and in the protection zone without vaccination fortnightly.

Agent identification in the controlled area on suspicion.
With FMD, the control of reservoirs is possible, practical and doable.
Until June 2016, the rest of the country to the south of the “red line” was free of ASF in both live animals and tempans.

There are however compartments free of the disease in the infected zone.
ASF

Animals ID and Movement control

Surveillance

ID
Commercial pigs in the rest of country must be identified by a tattoo.

Movement control
Movements of warthogs, bushpigs and wild pigs in the country (free zone) is by permit only.
No live warthogs allowed to move out of the infected zone.
Commercial pigs from compartments in the infected zone can only move into the free zone for direct slaughter.

Surveillance:
Clinical surveillance: ongoing in the rest of the country. This is characterised by high mortalities in naïve pigs, and as a differential diagnosis, ASF is always on the diagnostic list.
Sero-surveillance: ongoing in compartments in the free and infected zones.
The role played by vectors is significant, but has not been demonstrated in the free zone, even in the recently reported cases.
Thank you