

Zoning, compartments, safe commodities, specific risk mitigations – how to use to facilitate trade and for disease control



WORLD ORGANISATION FOR ANIMAL HEALTH
Protecting animals, preserving our future

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Outline

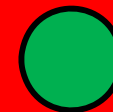
- *OIE Terrestrial Animal Health Code (Terrestrial Code)*
- *Evolution of Code requirements over years*
- General principles and requirements
 - Zone, compartment
 - Containment zone
 - Safe commodities
 - Specific risk mitigation measures

Evolution of free diseases areas over years

Free Country



Infected country



Free zone



Free Country



Containment zone

Infected country



Free compartments



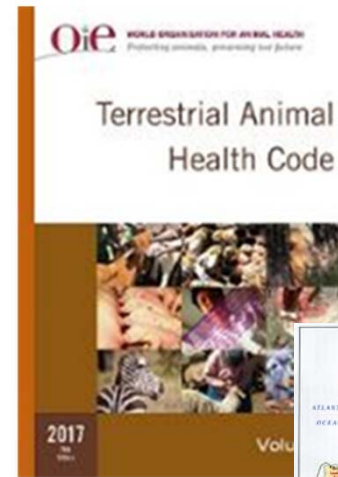
Evolution of country freedom approach over years



- Initially only country freedom from disease
- Not all Member Countries could comply for country freedom
- Introduced concept of zone free from disease
- Introduced concept of buffer zone – later replaced by protection zone
- Further refined to smaller area of freedom based on biosecurity principles - compartment
- Introduced concept of containment – to facilitate continuation of trade in rest of free area
- All of these are trade facilitating mechanisms

But why do we need standards for zones, compartments, specific risk mitigation measures?

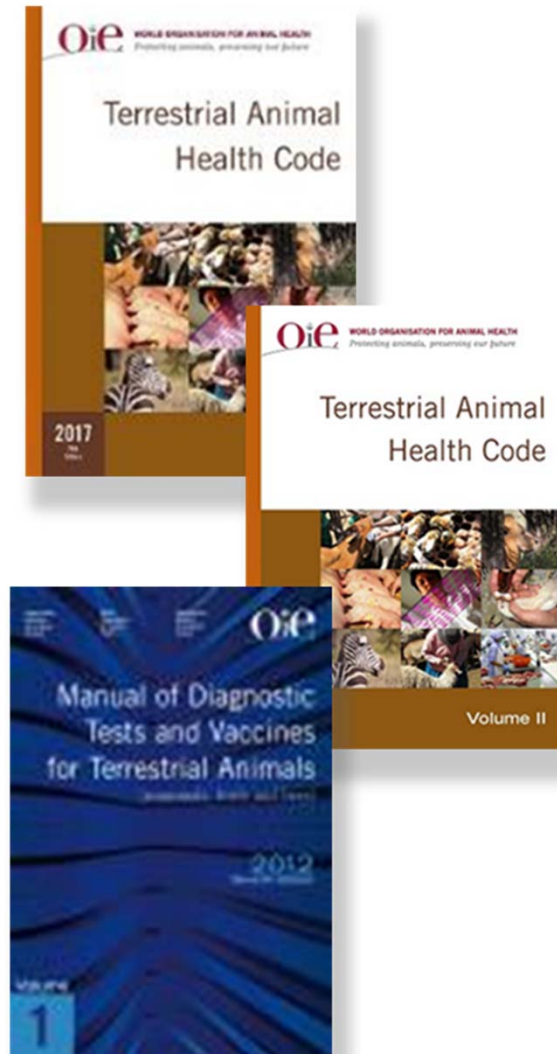
- To not re-invent the wheel
- To provide sanitary guarantees by default without establishing new guarantees
- To facilitate trade negotiations
- To establish trust between trade partners
- To create a scientific base to say 'yes' or 'no' for a trade request
- ***It is all there! – do not re-invent the wheel – use them fully for trade negotiations!!***



Zoning approach in the OIE *Terrestrial Code*



- ❑ Glossary
- ❑ Chapter 4.3. Zoning and compartmentalization
- ❑ Chapter 1.4 - surveillance
- ❑ Questionnaires 1.6



OIE *Terrestrial Code* definitions (Glossary)



ZONE/REGION

Means a clearly defined part of a territory containing an animal *subpopulation* with a distinct health status with respect to a specific *disease* for which required *surveillance*, control and biosecurity measures have been applied for the purpose of *international trade*.

SUBPOPULATION

Means a distinct part of a *population* identifiable according to specific common animal health characteristics.

SUBPOPULATION

- Separated by natural or artificial barriers or, in certain situations, by the application of appropriate management practices



OIE *TERRESTRIAL CODE'S* REQUIREMENTS REGARDING ZONING

Principles for defining and establishing a zone

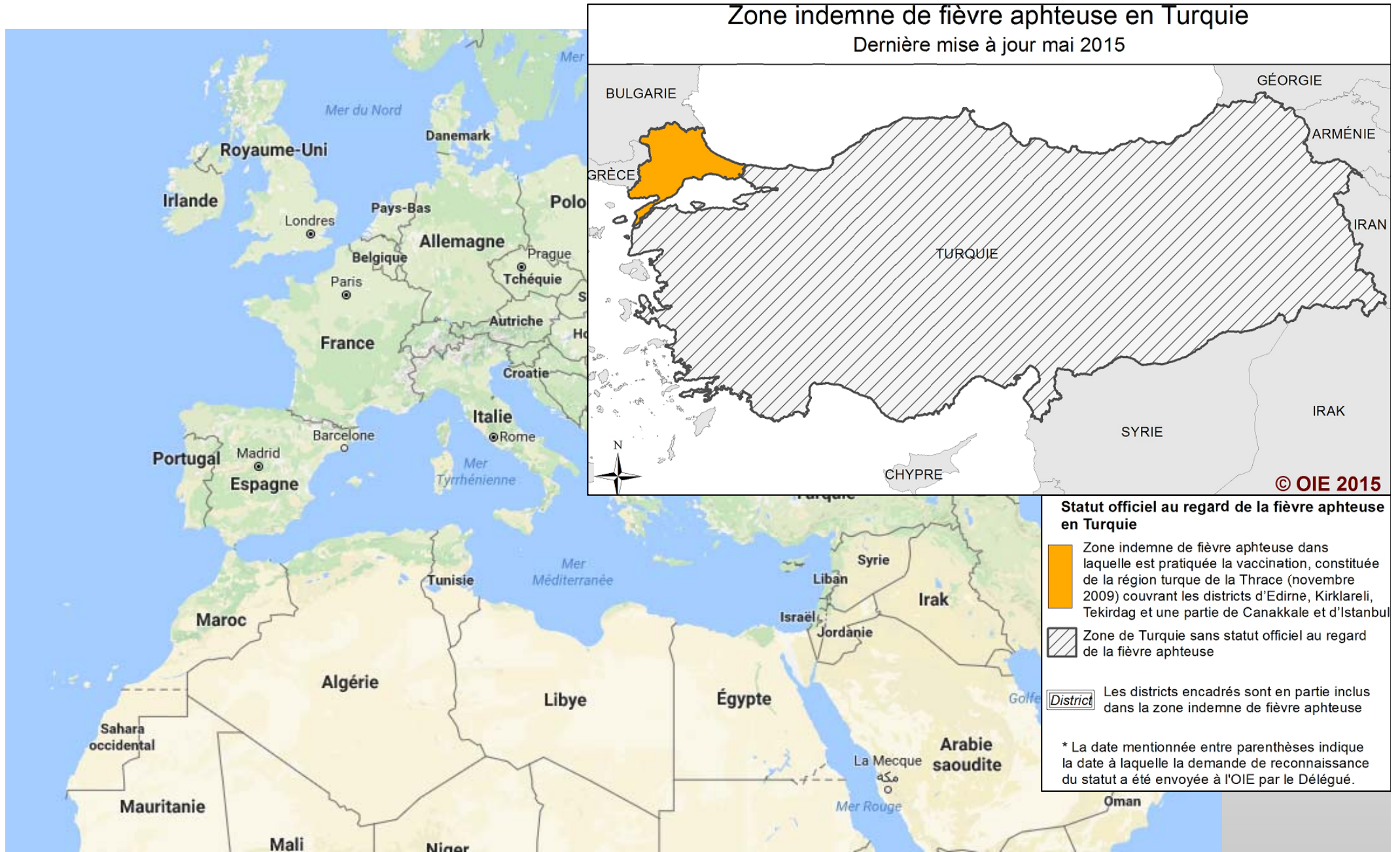
- Extent of a zone/geographical limits established by the *Veterinary Authority*
 - Natural, artificial and/or legal boundaries
 - Made public through official channels



Zone established by natural, artificial or administrative borders



Natural borders



Natural borders



Natural borders



Must apply to all seasons!



Artificial borders



Administrative borders

Zones indemnes de fièvre aphteuse au Kazakhstan

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SOMMAIRE

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Lois.

Les projets approuvés de la commission sénatoriale de la loi de finances de 1933 (p. 1000).

Présidence du conseil.

Arrêté modifiant l'arrêté du 29 juillet 1931 relatif au service de transport des militaires et assimilés des unités des formations de 1^{er} et de 2^e ordre (p. 1000).

Ministère de la justice.

Arrêté relatif à l'attribution de lettres de créance, nomination de juges de paix et de juges de paix suppléants (p. 1000).

Ministère de l'éducation nationale.

Arrêté relatif à l'organisation de l'enseignement primaire (p. 1000).

Arrêté relatif aux conditions de recrutement des enseignants (p. 1000).

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Ministère de la santé publique.

Arrêté relatif à l'attribution de lettres de mission et de lettres de mission provisoires (p. 1000).



Systems of animal identification

- Individual animal identification
- Identification on a herd basis



Principles for defining and establishing a zone



- Animals and herds belonging to such subpopulations need to be recognisable as such through a clear epidemiological separation
 - identification of the subpopulation
 - establishment and maintenance of its health status by preventing contact with zones of different status
 - measures will depend on the epidemiology of the disease, environmental factors, the health status of animals in adjacent areas, applicable biosecurity measures and surveillance.
 - Key principle in terms of the Code is to prevent the introduction of the pathogen

Principles for defining and establishing a zone

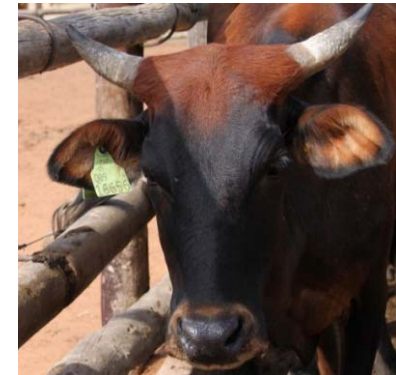
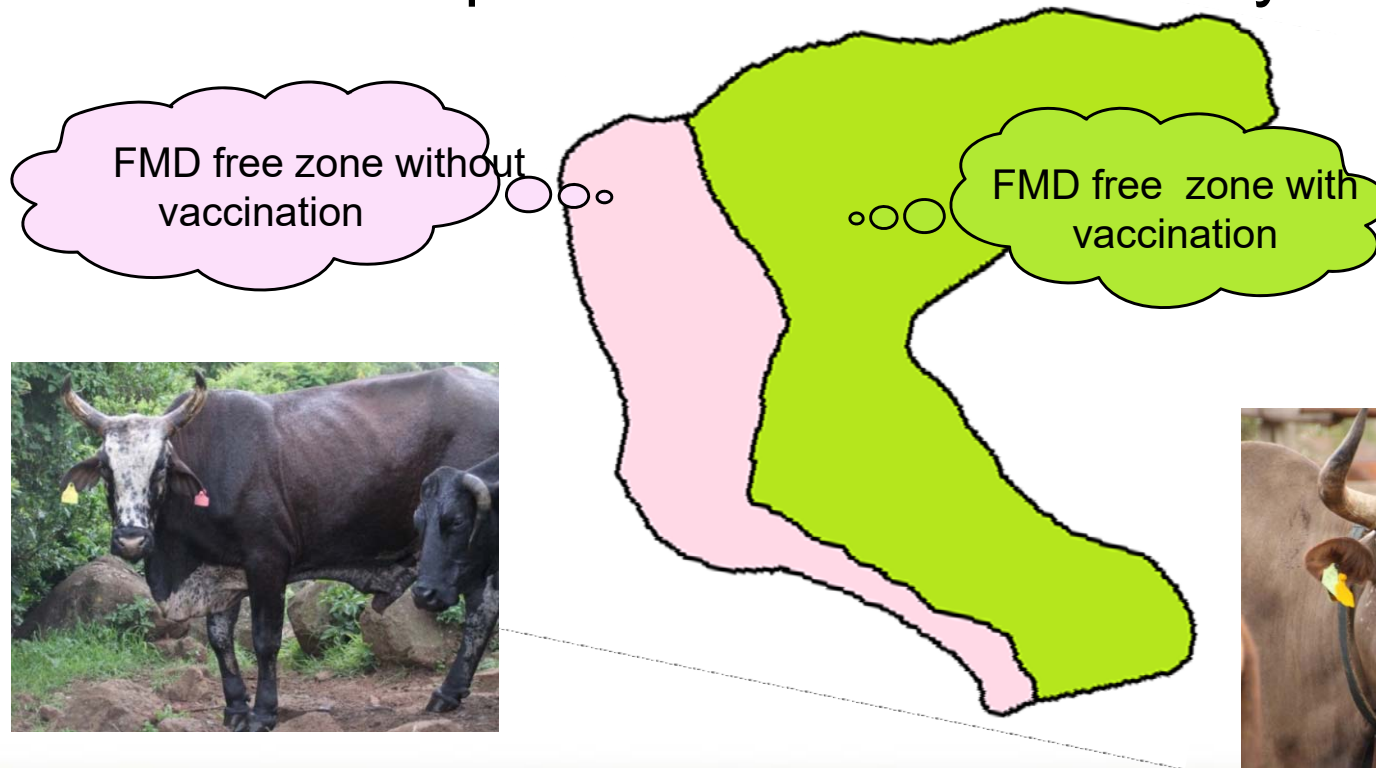
- Identification of animals for traceability of movements (at the herd, flock lot or individual animal level)



Animal movements into and out of the zone should be well documented and controlled

Principles for defining and establishing a zone

- Existence of a valid animal identification system
- Prevent movement across boundaries
- Imports, importation and imported products also applies to zones/compartments within a country



Practicalities of a zoning approach

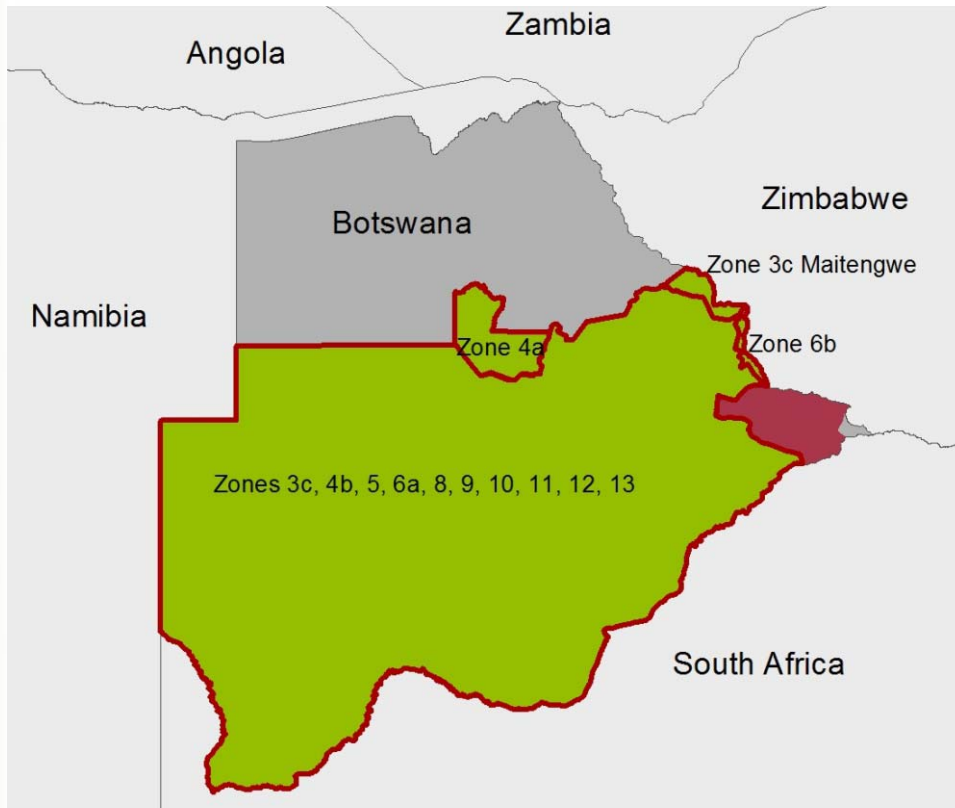
- Encourage more efficient use of resources within certain parts of a country
- Progressive approach for moving towards country freedom
- In case of an outbreak in a officially recognised zone, the status of other officially recognised zones would not be suspended – provided integrity is maintained
- Maintenance is the critical concept once freedom is obtained – more difficult than achieving free status

Protection zone

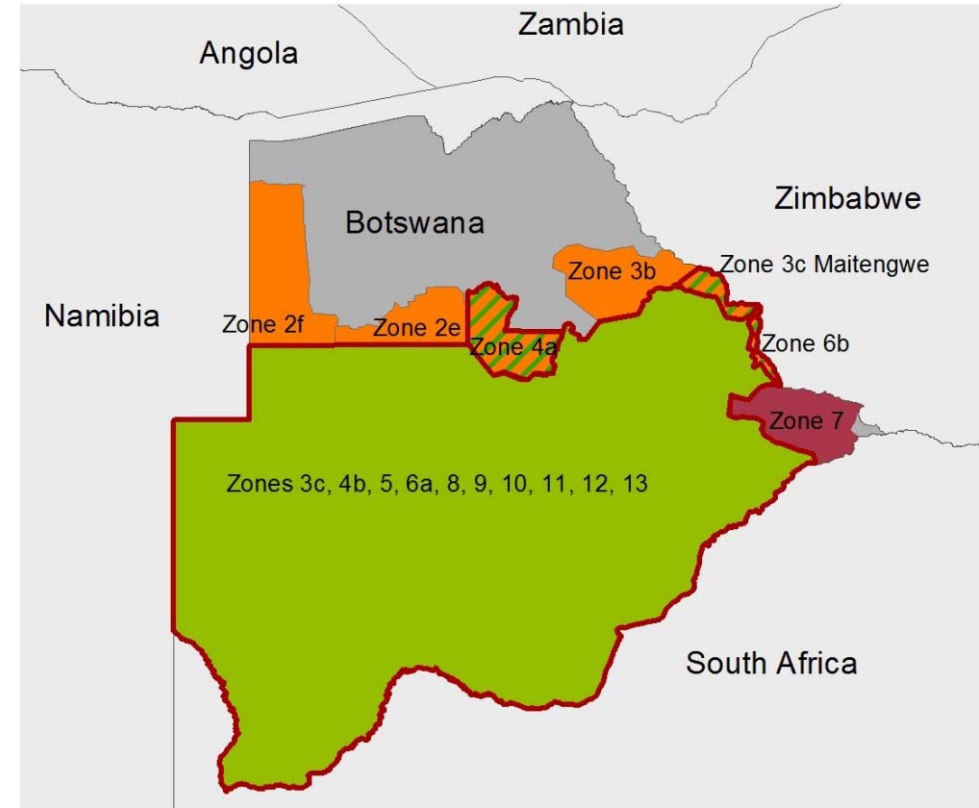
- Can be inside or outside a free zone
- Not compulsory
- To preserve the health status of animals in a free country or zone, from adjacent countries or zones of different animal health status.
- Measures based on the epidemiology of disease to prevent introduction of the virus and to ensure early detection.
- Should include intensified movement control, surveillance and vaccination where indicated

Example) Botswana

Protection zones inside and outside of FMD free zone



- FMD free zones without vaccination, as proposed for adoption
- Suspension of previous FMD free status without vaccination
- Part of Botswana without an officially recognised FMD status



- Bigger zone free without vaccination
- FMD free zones without vaccination, part of the protection zones
- Protection zones without official status
- Zone which official status is suspended, part of the protection zones
- Part of Botswana without an officially recognised FMD status

Protection zone (2)

- Measures may also include:
 - animal identification and animal traceability
 - vaccination of animals
 - enhanced biosecurity including cleansing
 - specific surveillance of susceptible wildlife species and relevant vectors
 - awareness campaigns

Protection zone

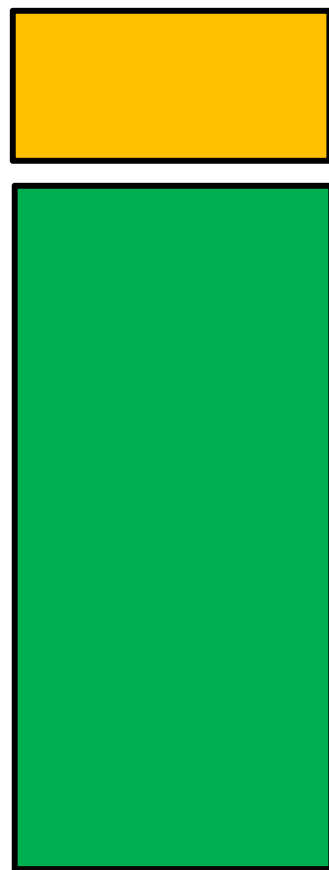
- Not an officially approved zone by OIE i.e. such as a free zone with or without vaccination
- Done on the choice of the Member Country
- Must inform OIE of the application and boundaries if a country establish a protection zone
- Can be within an existing free zone or outside an existing free zone
- If inside the free zone then has the status of the free zone
- If outside an OIE approved free zone then has no status – infected – **unless a free zone with vaccination functions as a protection zone**
- A free zone with vaccination can be used as a protection zone

Protection zone and outbreaks of FMD



- If an outbreak in a protection zone that is outside a free zone - status of free zone not affected
- If an outbreak in a protection zone that is within a free zone - status of whole free zone is lost if outbreak is not isolated within a *containment zone* established in the protection zone

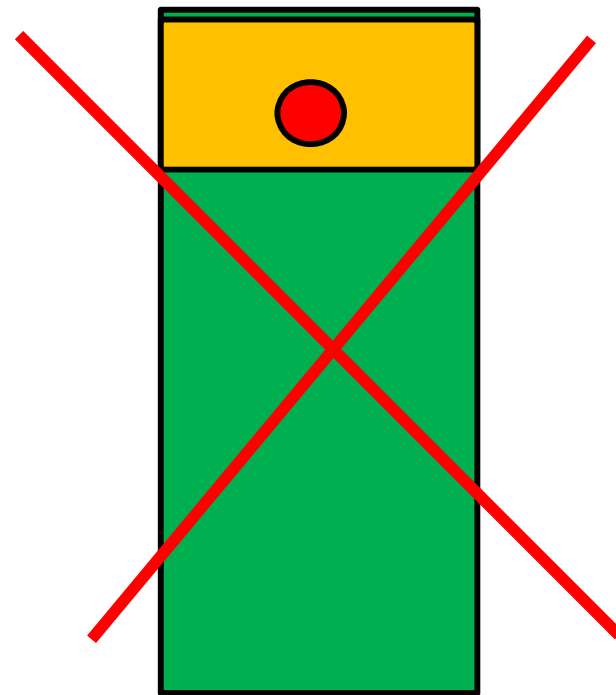
Protection zone



Protection zone



Free zone



PZ inside free zone

PZ outside free zone

Zoning vs. Compartmentalisation

- *Zoning*: animal subpopulation defined primarily on a geographical basis (using natural, artificial or legal boundaries)
– single disease
- *Compartmentalisation*: animal subpopulation defined primarily by management and husbandry practices related to biosecurity
– could be for multiple diseases
- Biosecurity plan for compartment specific to the disease (s) is essential
- In practice, spatial considerations and good management (including biosecurity plans) for both
- Where zoning is difficult to achieve – compartments could be considered

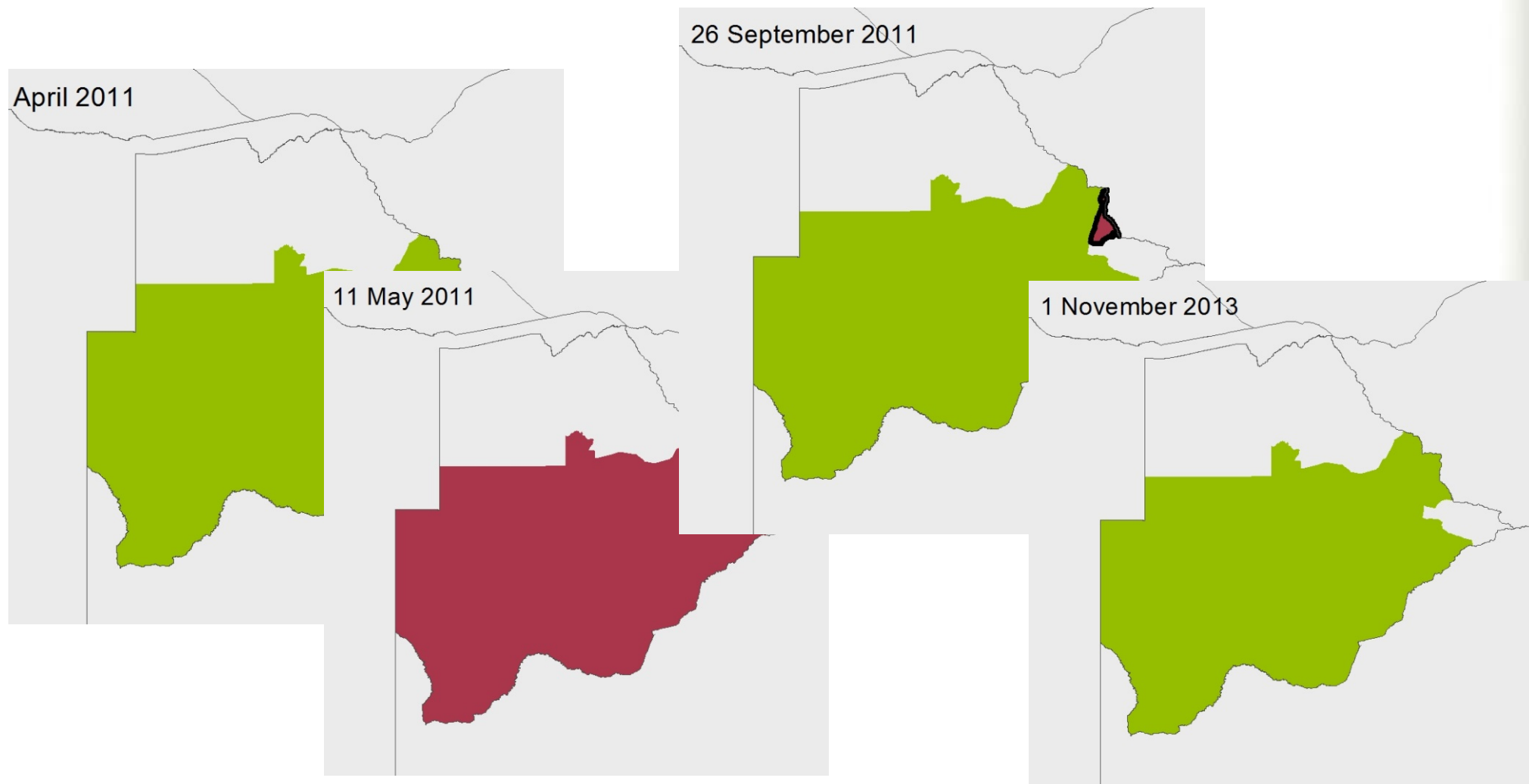
Containment zone

- In the event of limited outbreaks in a country or zone previously free of a disease
- A single containment zone, including all cases
- For the purposes of minimising the impact and of trade
- Not a never-ending application – as soon as disease outbreak is resolved should be merged

Rapid response



Containment zone – *Ex) Botswana*



Requirements for a containment zone

- Standstill
- Identification of the primary outbreak and the likely source of the outbreak investigated
- All cases epidemiologically linked
- A stamping-out policy or another effective control strategy aimed at eradicating the disease e.g. controlled slaughter
- Identification of the susceptible animal population within the containment zones
- Increased passive and targeted surveillance in the rest of the country or zone
- Measures in place to prevent spread of the infection from the containment zone to the rest of the country or zone

Establishment/Management of the containment zone



- A single containment zone, including all cases,
- No new cases in the containment zone within a minimum of two incubation periods from the last detected case
- Reinstatement of the free status, once the containment zone is clearly established, irrespective of the provisions of the disease-specific chapter
- Ability to demonstrate that commodities for international trade are originated outside the containment zone
- The recovery of the free status of the containment zone should follow the provisions of the disease-specific chapter

WHEN APPLYING FOR A FMD FREE ZONAL STATUS

Resolution requiring notification of merging or not



In the event of the application for the status of a FMD free *zone* where *vaccination* is not practised to be assigned to a new *zone* adjacent to another FMD free *zone* where *vaccination* is not practised, it should be stated if the new *zone* is being merged with the adjacent *zone* to become one enlarged *zone*. If the two *zones* remain separate, details should be provided on the control measures to be applied for the maintenance of the status of the separate *zones* and particularly on the identification and the control of the movement of *animals* between the *zones* of the same status in accordance with Chapter 4.3.

Under the responsibility of the Veterinary Services

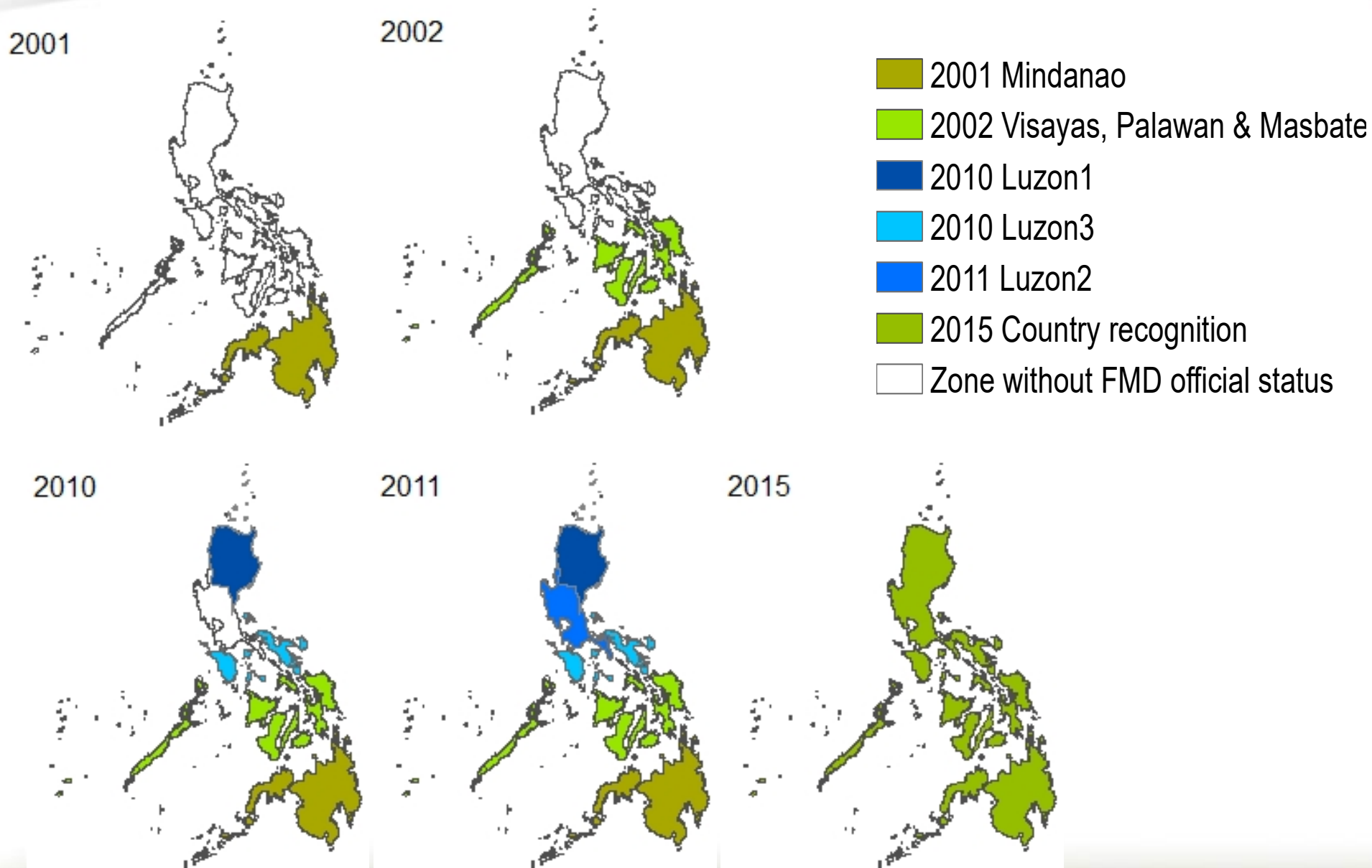


- The final authority of the zone lies with the *Veterinary Authority*
- Cooperation of industry and *Veterinary Services* for the development of biosecurity and surveillance
- The *Veterinary Services* should
 - provide movement certification
 - carry out documented periodic inspections of facilities, biosecurity measures, records and surveillance procedures.
 - conduct or audit surveillance, reporting and laboratory diagnostic examinations.
 - Remain responsible for the maintenance of the integrity of the zone

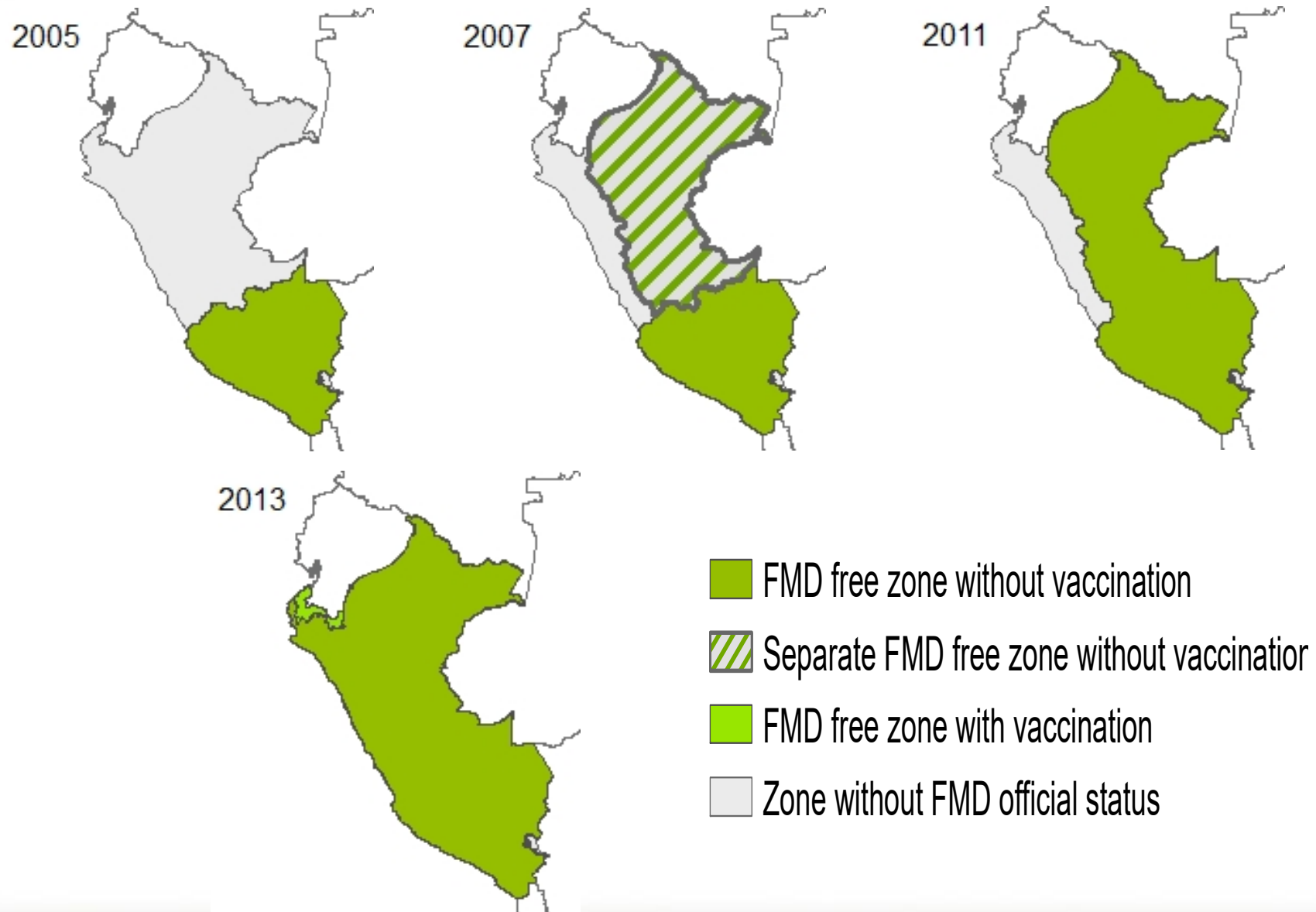
Application for a zone

- Describe in detail in accordance with the questionnaire (Chapter 1.6.6):
 - the boundaries of the proposed FMD free zone;
 - the system for preventing the entry of the virus (including the control of the movement of susceptible animals) into the proposed FMD free zone
 - If merging with other zones is intended

Zoning success story – the Philippines



Zoning success story – Peru



Safe commodity

‘means a commodity that can be traded without the need for risk mitigation measures specifically directed against a particular listed disease, infection or infestation and regardless of the status of the country or zone of origin for that disease, infection or infestation’.



Listed/described in Article X.X.2 of Disease specific chapters

Safe commodity – Criteria – Article 2.2.2

- There is strong evidence that the pathogenic agent is not present in the tissues from which the animal product is derived
- to cause infection in a human or animal by a natural exposure route.
- based on the known distribution of the pathogenic agent in an infected animal
- whether or not it shows clinical signs of disease.

OR

If the pathogenic agent may be present standard processing or treatment applied to produce the commodity to be traded, inactivates it through:

physical (e.g. temperature, drying, irradiation);

OR

chemical (e.g. iodine, pH, salt, smoke);

OR

biological (e.g. fermentation);

OR

a combination of a) to c) above.

Specific examples: BSE

1. When authorising import or transit of the following *commodities* and any products made from these *commodities* and containing no other tissues from cattle, *Veterinary Authorities* should not require any BSE related conditions, regardless of the BSE risk status of the cattle population of the *exporting country, zone or compartment*.
 - a. *milk* and *milk products*;
 - b. semen and *in vivo* derived cattle embryos collected and handled in accordance with the recommendations of the International Embryo Transfer Society;
 - c. hides and skins;
 - d. gelatine and collagen prepared exclusively from hides and skins;
 - e. tallow with maximum level of insoluble impurities of 0.15% in weight and derivatives made from this tallow;
 - f. dicalcium phosphate (with no trace of protein or fat);
 - g. deboned skeletal muscle meat (excluding mechanically separated meat) from cattle which were not subjected to a stunning process prior to *slaughter*, with a device injecting compressed air or gas into the cranial cavity or to a pithing process, and which passed ante- and post-mortem inspections and which has been prepared in a manner to avoid contamination with tissues listed in Article 11.4.14.;
 - h. blood and blood by-products, from cattle which were not subjected to a stunning process, prior to *slaughter*, with a device injecting compressed air or gas into the cranial cavity, or to a pithing process.

Specific examples: PRRSV

Article 15.3.2.

Safe commodities

When authorising import or transit of the following *commodities* and any products made from these *commodities* and containing no other tissues from pigs, *Veterinary Authorities* should not require any PRRS related conditions, regardless of the PRRS status of the *exporting country, zone or compartment*.

1. hides, skins and trophies;
2. bristles;
3. *meat products*;
4. *meat-and-bone meal*;
5. blood-products;
6. *casings*;
7. gelatine.

Specific examples: LSD

Article 11.9.2.

Safe commodities

When authorising import or transit of the following *commodities*, *Veterinary Authorities* should not require any LSD related conditions regardless of the status of the animal population of the *exporting country*:

1. skeletal muscle *meat*;
2. *casings*;
3. gelatine and collagen;
4. tallow;
5. hooves and horns.

What if a commodity is not listed as safe in Article X.X.2?

- Then apply specific risk mitigation measures
- Described in trade related articles for each disease
- Include specific measures related to the infection or infestation such as:
- pH requirements; maturation; specific tests (semen, embryos); vaccination; etc.



Specific examples: LSD

Article 11.9.2.

Safe commodities

When authorising import or transit of the following *commodities*, *Veterinary Authorities* should not require any LSD related conditions regardless of the status of the animal population of the *exporting country*:

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2. *casings*;
3. gelatine and collagen;
4. tallow;
5. hooves and horns.

Specific examples: LSD

Article 11.9.9.

Recommendations for importation from countries or zones free from LSD

For embryos of bovines and water buffaloes

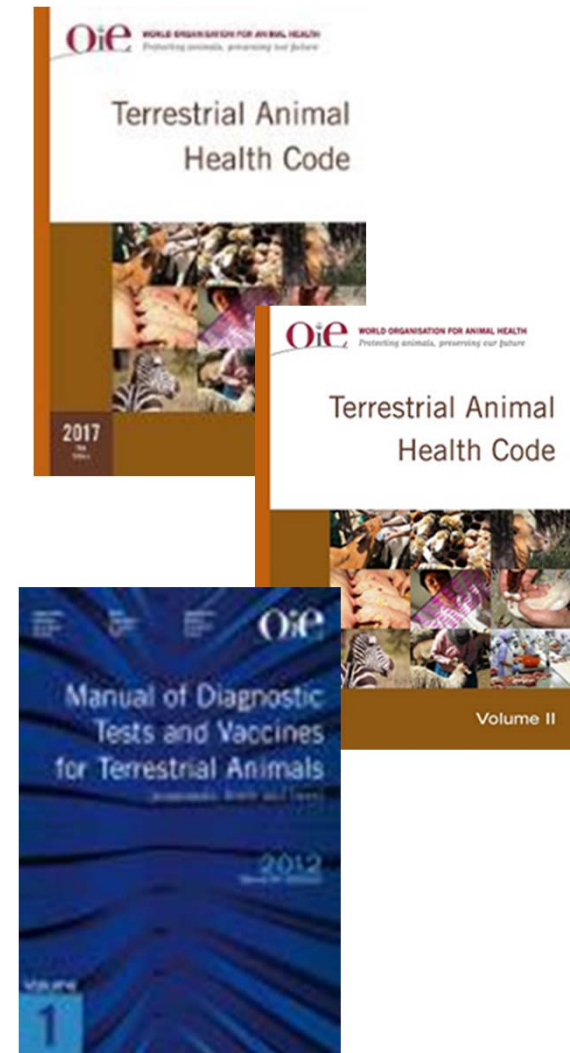
Veterinary Authorities should require the presentation of an *international veterinary certificate* attesting that:

1. the donor females:
 - a. showed no clinical sign of LSD on the day of collection of the embryos;
 - b. kept for at least 28 days prior to collection in a free country or *zone*;
2. the embryos were collected, processed and stored in accordance with Chapters 4.7., 4.8. and 4.9., as relevant;
3. the semen used for the production of the embryos complied with Articles 11.9.7. or 11.9.8., as relevant.

In summary: how to use these trade facilitating measures



- Accept Code and manuals are based on science and subjected to risk assessment
- Respect trade ethical principles such as equivalence, harmonisation, regional similarities
- Accept that once published – a standard is accepted and adopted by OIE GS – and by you as Delegate
- Be practical to enter into trade – if zoning/country freedom impossible – try other tools – compartments
- Negotiate for sanitary guarantees that meets the level of protection within limits of OIE standards



Thank you for your attention!



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