National Workshop PVS - PPP Targeted Support – India

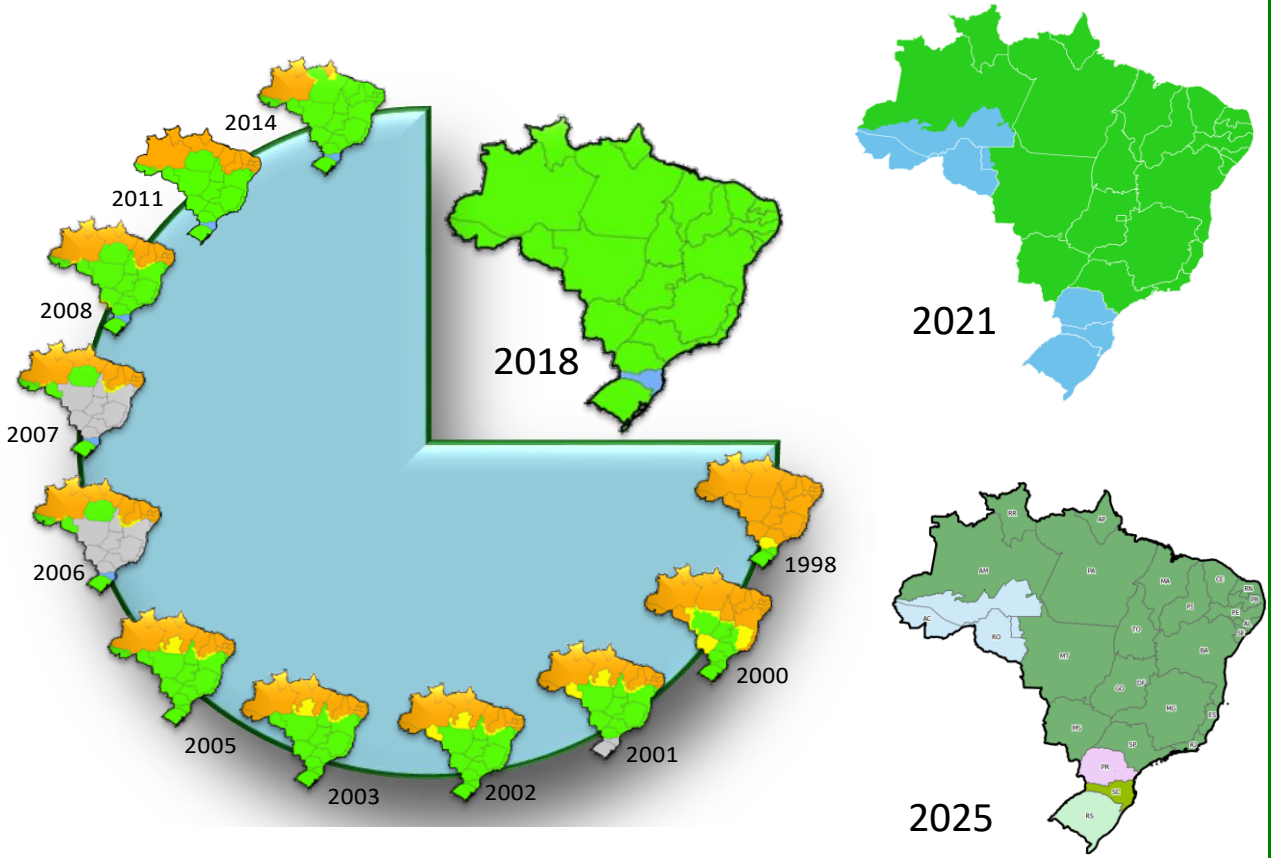
Establishing and Sustaining FMD-Free Zones in Brazil

Key contributions of the Public and Private Sectors

Márcia Mourão
Official Veterinarian
Animal Health Department
Ministry of Agriculture and Livestock - Brazil

MINISTRY OF AGRICULTURE AND LIVESTOCK

Progressive expansion of FMD-Free status



Long-term public policy

Sustained and coordinated investment

Shared responsibility – public and private

International standards - WOAH



Official FMD status in Brazil

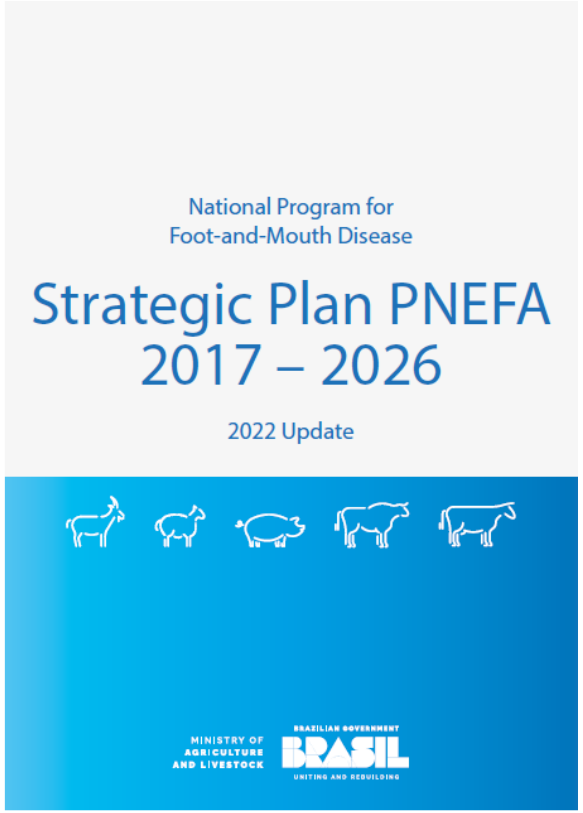
The six FMD-free zones without vaccination are covering the whole territory of Brazil

- Zone 1 consisting of State of Santa Catarina (February 2007)
- Zone 2: State of Paraná (August 2020)
- Zone 3: State of Rio Grande do Sul (August 2020)
- Zone 4 including the State of Acre, Rondônia and Amazonas, with the adjustment of the borders of the State of Amazonas (August 2025)
- Zone 5 including the States of Alagoas, Amapá, Bahia, Ceará, Espírito Santo, Goiás, Mato Grosso, Mato Grosso do Sul, Maranhão, Minas Gerais, Pará, Paraíba, Pernambuco, Piauí, Rio de Janeiro, Rio Grande do Norte, São Paulo, Sergipe, Tocantis and Distrito Federal (September 2024)
- Zone 6 including the State of Roraima (August 2025)

* Dates shown in brakets indicate when the relevant applications were submitted to WOAH by the Delegate.

PNEFA Strategic Plan (2017-2026)

Expanding FMD-free zones where vaccination is not practised in Brazil



Management of FMD-free zones strategy in Brazil

Public Sector Responsibilities

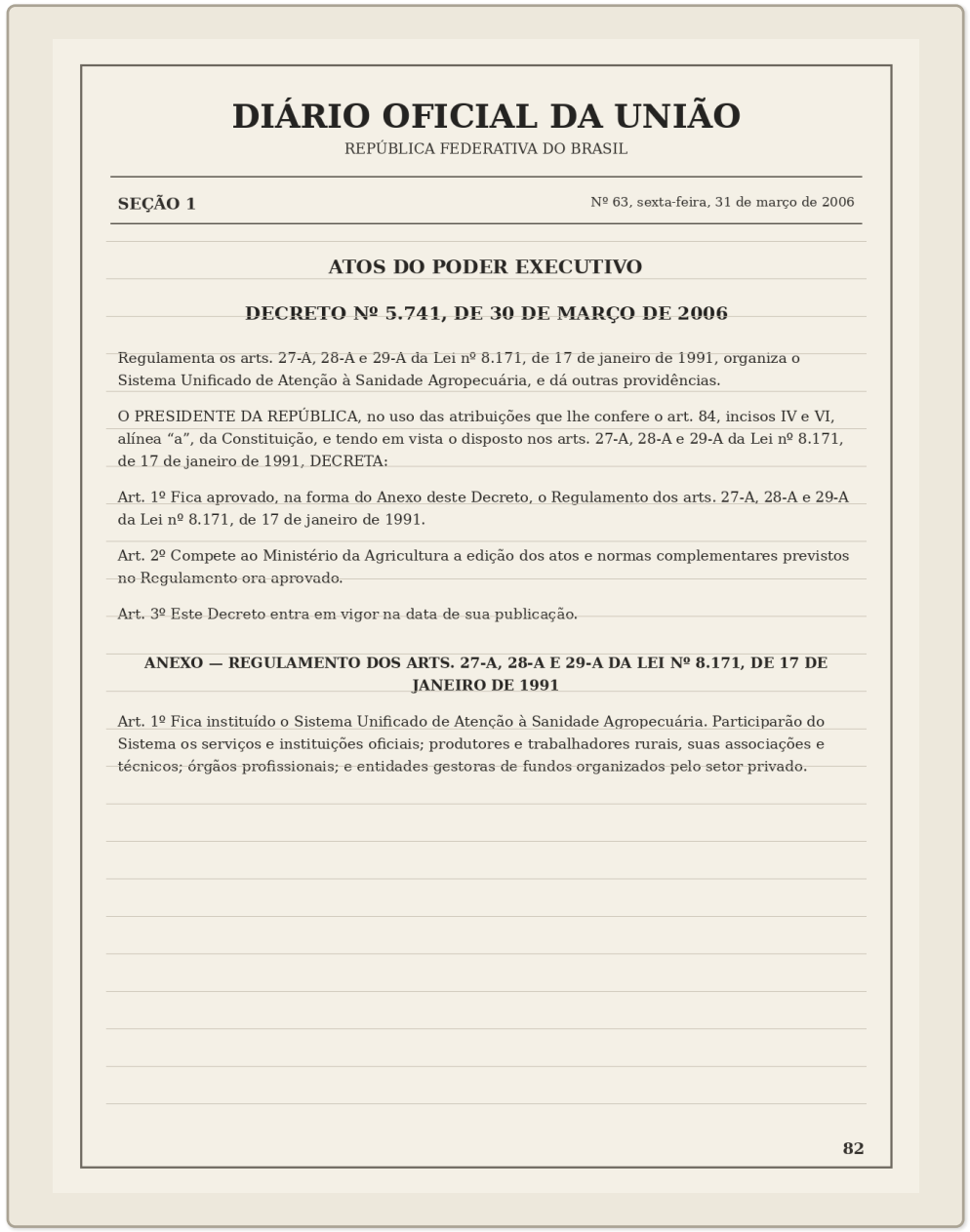
- MAPA - leadership and coordination
- VS structure and capacity building
- Surveillance, diagnostics and emergency preparedness
- Border controls / animal movement controls
- Monitoring indicators for decision on vaccination suspension

Private Sector Responsibilities

- Reporting FMD suspicion
- Compliance with animal health measures
- Supporting planning
- Shared funding and programme sustainability - private funds
- Participation in decision-making forums

Shared governance through
PNEFA Management Teams (EGN/EGE)

SUASA: Legal Basis for Private-Sector Participation



DIÁRIO OFICIAL DA UNIÃO

REPÚBLICA FEDERATIVA DO BRASIL

SEÇÃO 1 — Nº 63, sexta-feira, 31 de março de 2006

ATOS DO PODER EXECUTIVO

DECRETO Nº 5.741, DE 30 DE MARÇO DE 2006

Regulamenta os arts. 27-A, 28-A e 29-A da Lei nº 8.171, de 17 de janeiro de 1991, organiza o Sistema Unificado de Atenção à Sanidade Agropecuária, e dá outras providências.

O PRESIDENTE DA REPÚBLICA, no uso das atribuições que lhe confere o art. 84, incisos IV e VI, alínea "a", da Constituição, e tendo em vista o disposto nos arts. 27-A, 28-A e 29-A da Lei nº 8.171, de 17 de janeiro de 1991, DECRETA:

Art. 1º Fica aprovado, na forma do Anexo deste Decreto, o Regulamento dos arts. 27-A, 28-A e 29-A da Lei nº 8.171, de 17 de janeiro de 1991.

Art. 2º Compete ao Ministério da Agricultura a edição dos atos e normas complementares previstos no Regulamento ora aprovado.

Art. 3º Este Decreto entra em vigor na data de sua publicação.

ANEXO — REGULAMENTO DOS ARTS. 27-A, 28-A E 29-A DA LEI Nº 8.171, DE 17 DE JANEIRO DE 1991

Art. 1º Fica instituído o Sistema Unificado de Atenção à Sanidade Agropecuária. Participarão do Sistema os serviços e instituições oficiais; produtores e trabalhadores rurais, suas associações e técnicos; órgãos profissionais; e entidades gestoras de fundos organizados pelo setor privado.

82

SUASA : Unified Animal and Plant Health System

- Framework established by a Federal Decree in 2006
- Surveillance, inspection and regulatory enforcement across all government levels
- Safeguard agricultural and livestock health, from primary production to the domestic market or for export
- Authority of public sector - central and states levels
- Integration of producers, associations, technicians, professional statutory bodies and private funds in animal and plant health actions throughout the country
- Producers and other actors in the production chain are primarily responsible for ensuring animal health and sanitary compliance, even when official controls are performed.

Animal health is a public mandate with shared operational responsibility

SUASA makes private responsibility explicit

Who participates in SUASA

Official services and institutions

Producers, rural workers, associations and technical experts

Professional statutory bodies

Private-sector managed funding entities that complement public investments

Core legal principle

Official controls do not replace the primary legal responsibility of production-chain participants to safeguard animal health and comply with sanitary obligations.

Cooperation & financing

Producers and other stakeholders must cooperate with competent authorities.

The legal framework also recognizes private funds as instruments to complement public animal-health investments.

Public authority + private legal responsibility = a stronger sanitary system

MINISTRY OF AGRICULTURE AND LIVESTOCK

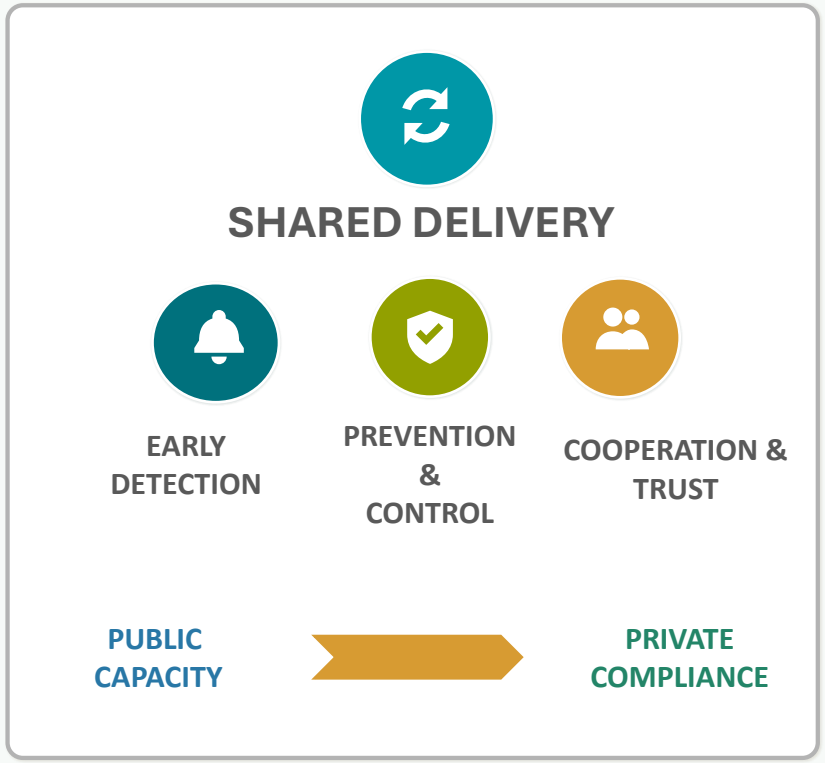
Animal Health is a Shared Responsibility

Public authority sets and enforces the system. Farmers and producers turn animal-health rules into daily practice.

PUBLIC SECTOR

Federal and state official services

- Set animal-health rules and standards
- Surveillance, inspection and disease control/eradication programmes
- Investigation and laboratory diagnostics
- Animal movement control and sanitary certification
- Contingency planning and preparedness
- Educate, audit and enforce compliance across the production chain



PRIVATE ACTORS

Farmers, producers, associations and technical experts

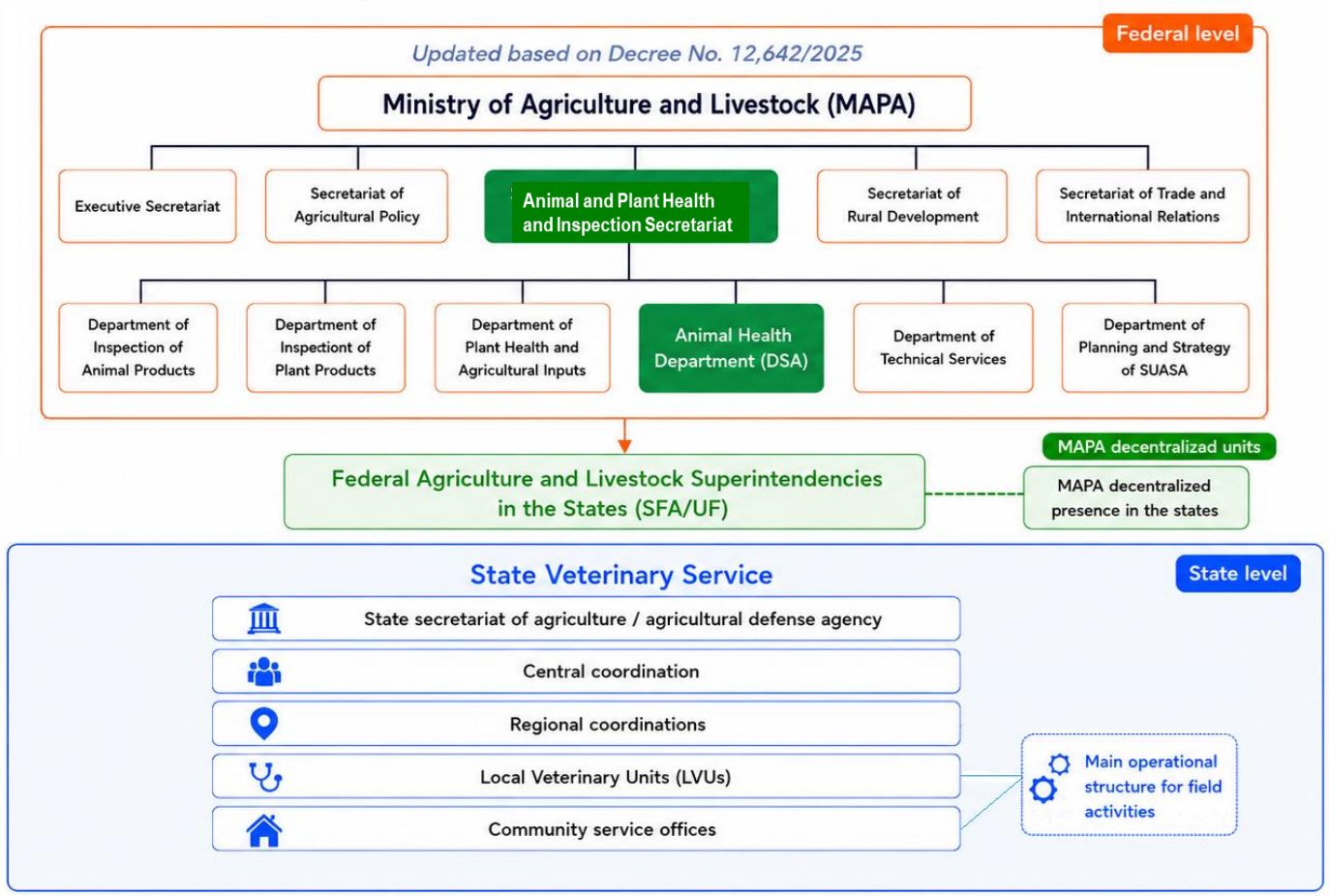
- Biosecurity, vet assistance, good husbandry practices
- Immediately report suspect disease
- Animal identification, records and traceability
- Comply with vaccination, movement and sanitary requirements
- Support official access, inspection, sampling and investigation in farms
- Private animal health funds

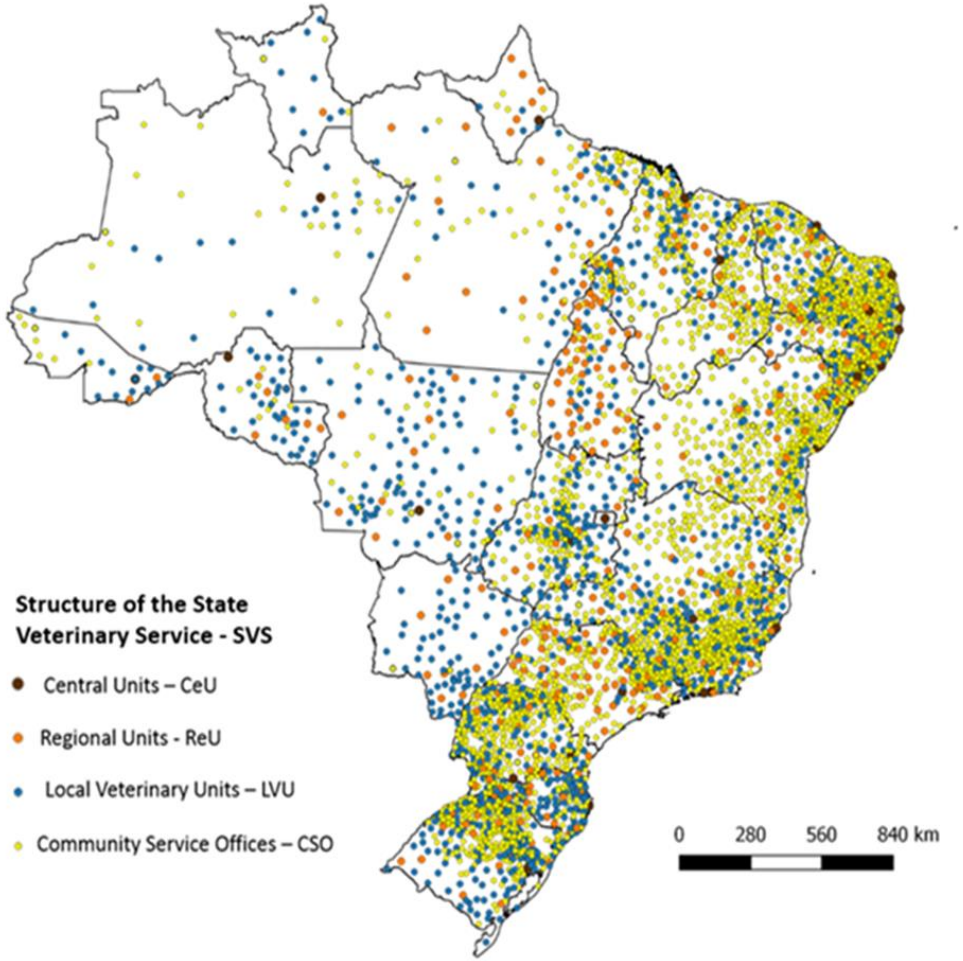
Earlier detection • Faster response • Healthier herds • Safer trade • Stronger public health protection

MINISTRY OF AGRICULTURE AND LIVESTOCK

Official Veterinary Service

Organisation and Maintenance of Official Veterinary Services is a Public Responsibility





27 State Offices **1.599 Local Veterinary Units** **5.198 Community Offices** **4.897 Official Veterinarians** **10.362 Paravets/ support staff**

MINISTRY OF AGRICULTURE AND LIVESTOCK

Private Sector Organisation - Agriculture and Livestock Producers

Organising and strenghtening brazillian producers - Promotion of economic and social development of agribusiness

CNA
National Agriculture Confederation

- 27 State Agriculture Federations
- +2.000 Unions (municipalities)
- + 5 million rural producers
- Participation in PNEFA National and State Management Teams
- Organisation and management of private funds for FMD emergency
- Communication/Technical assistance/Capacity Building



MINISTRY OF AGRICULTURE AND LIVESTOCK

FMD Vaccination Strategy

Planning

- Federal and state plans
- Annual calendar , goals, budget and logistics
- Two annual vaccination stages

Organisation

- Federal–state–private collaboration
- Clear roles and responsibilities
- Cold chain and distribution
- Official control

Target population

- Cattle and buffaloes all ages



Type of vaccine

- Inactivated, oil-adjuvante vaccines
- Serotypes O, A and C*
- Antigenic match with strains
- Laboratory surveillance

Monitoring & coverage

- Field and data-system
- Clinical and serological surveillance
- Coverage by region/system
- Rapid response to non compliance/gaps

Verification of vaccination

- Producer declaration
- Official vaccination records
- Electronic systems
- Audits and field inspections

Evaluation of coverage

- Demographics database
- Animal movement data
- Planned targets
- Population immunity surveys (not routinely)

Results

- Progressive reduction of FMD cases
- Disease-free status since 2018
- Stronger animal health system
- International market access



FMD Vaccination

MAPA

- Regulation / standards / guidelines / strategies
- Control, licensing, approval of vaccines
- Inspection of manufacturers
- National vaccination calendar
- National and Regional Antigen Bank

STATE VETERINARY SERVICES

- Organisation State vaccination campaigns - field mobilisation
- Inspection in farms
- Official vaccination in risk premises
- Monitoring animal vaccination

INDUSTRY

- Vaccine availability - production, testing, storage and distribution, cold chain
- Quality / safety / efficacy controls
- Regulatory / strategic supply

PRODUCERS

- Purchase and application of vaccines
- Declaration / proof of vaccination to the Veterinary Service
- Associations - Public Awareness Campaigns on FMD Vaccination

MINISTRY OF AGRICULTURE AND LIVESTOCK

Livestock holding registry

Foundation for animal health surveillance, traceability and movement control

- Mandatory registry of livestock operations.
- All producers and types of livestock activity are registered in every holding.
- A single code associated with the municipality and the State of location.



MINISTRY OF AGRICULTURE AND LIVESTOCK

Livestock holding registry

PREMISES

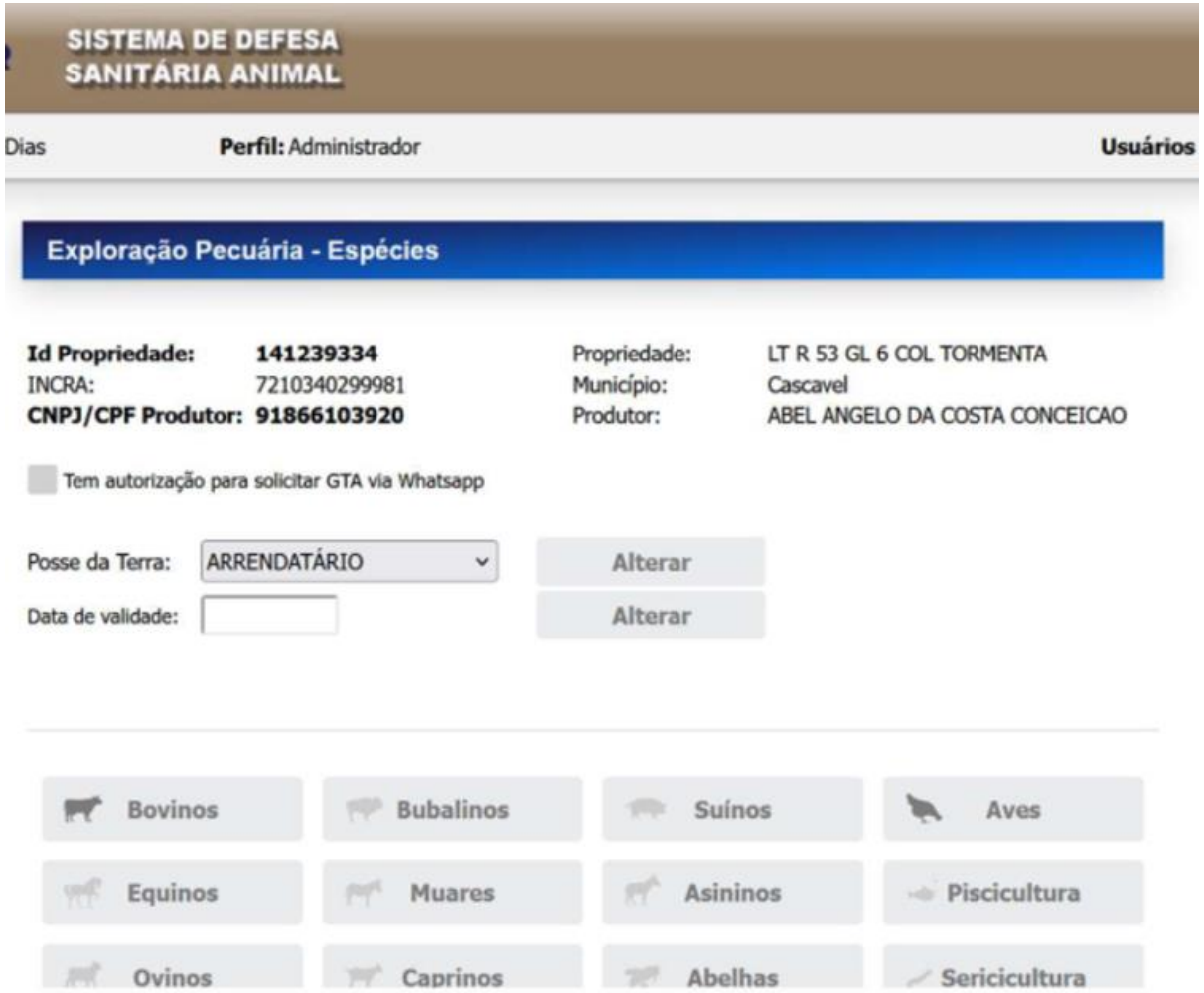
ID - Name, Holding Code, Location - Address, Geolocation, Access and Routes

OWNER - PRODUCERS

ID - Names, Contacts, Legal responsibility for operations

LIVESTOCK

Species, Operation Purpose, Inventory, Production Units, Sanitary information, Mandatory vaccines



MINISTRY OF AGRICULTURE AND LIVESTOCK

Livestock holding registry

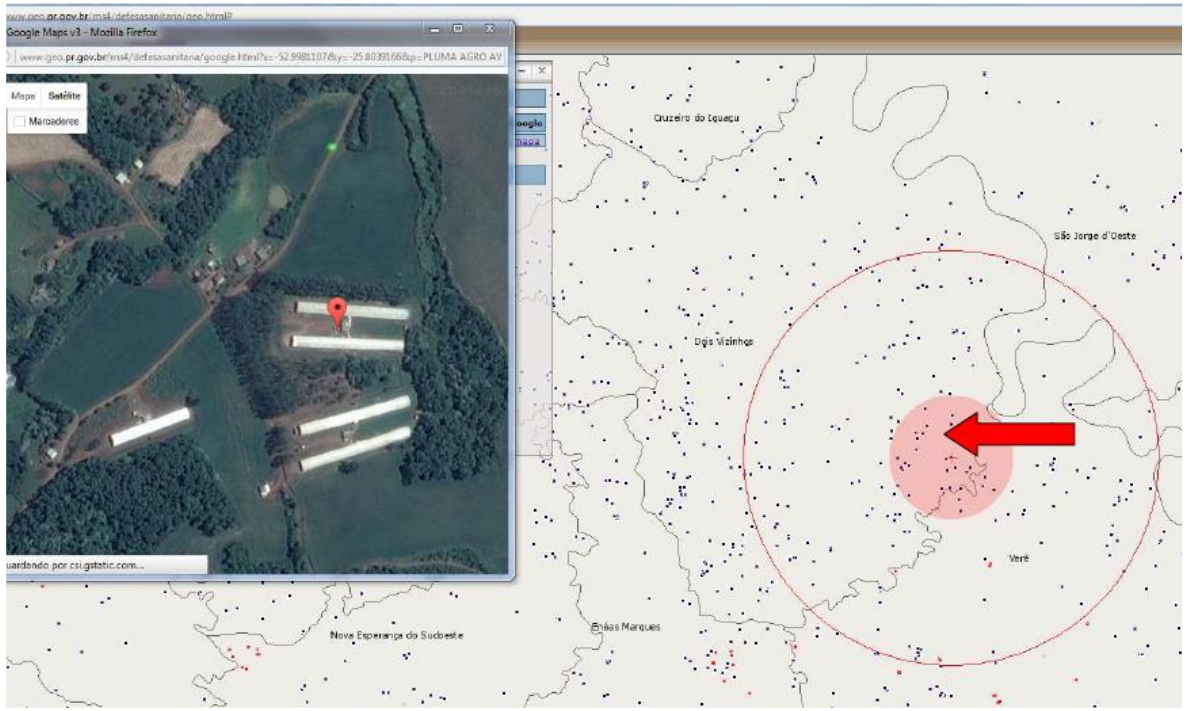
MAPA
National legal framework, standards

SVS CENTRAL UNIT
State regulations, electronic system, reference tables/codes, permissions, audits, analysis, regular herds updating campaigns

LOCAL VETERINARY UNIT
Record and review data, validate geolocation, inspection on site

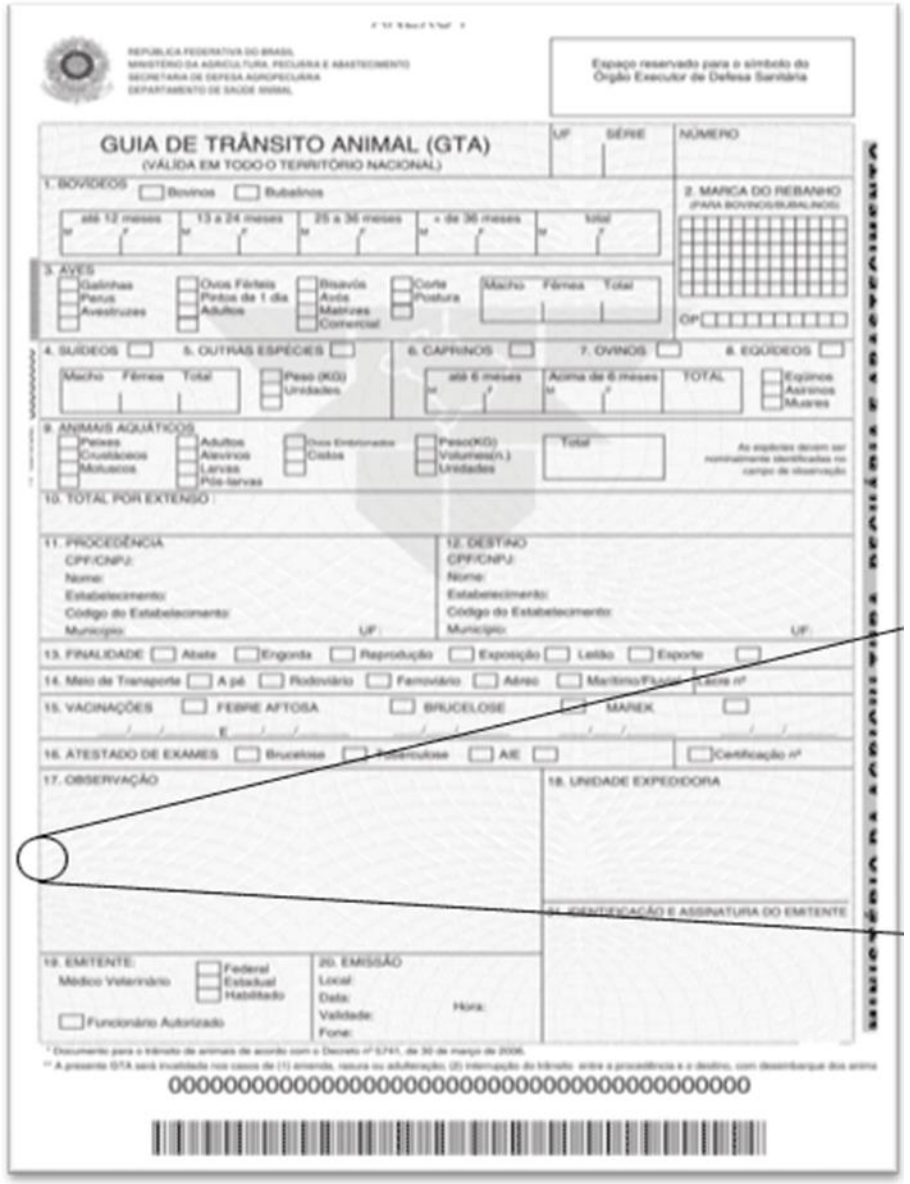
OWNER / PRODUCER
Report herd inventory, losses, transfers and update any changes

Animal population is dinamic.
Holdings are the stable geographic foundation.
Connects vaccination -movement control - traceability - surveillance - response



MINISTRY OF AGRICULTURE AND LIVESTOCK

Animal movement control


GUIA DE TRÂNSITO ANIMAL (GTA)
(VÁLIDA EM TODO O TERRITÓRIO NACIONAL)

GTA - Animal Transit Permit - official authorization document

Origin	Registered establishment - Code, Location, Name, Producer
Destination	Receiving establishment – Code, Location, Name, Producer
Animals	Species, Age, Category, Quantity, Herd Identification Mark
Purpose	Movement purpose – Slaughter, Fattening, Breeding, Livestock Events, Competition/Exhibition, Auction, Quarantine, Export
Health	Sanitary requirements - vaccines, tests, health status
Transportation	Type, Identification

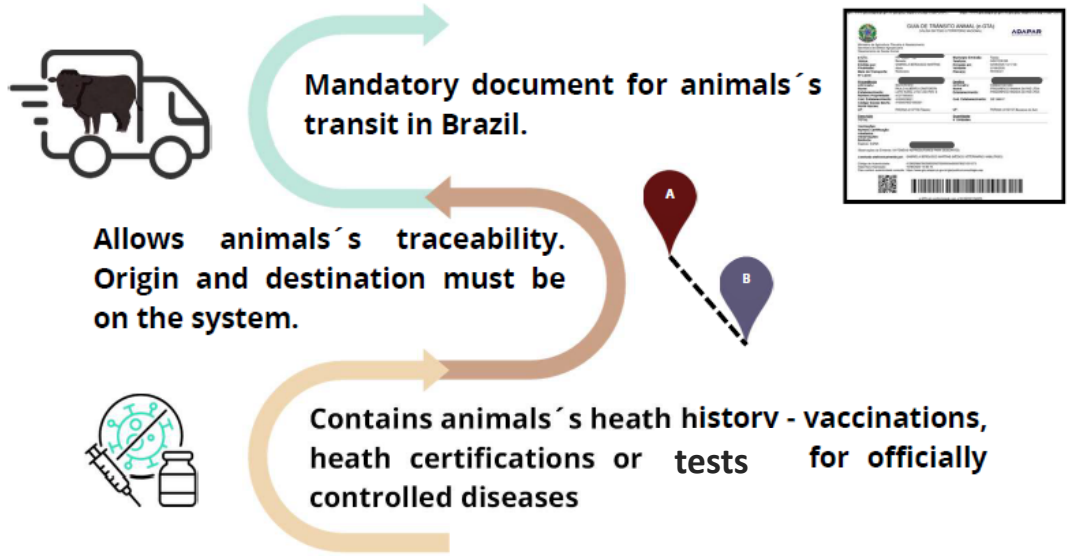
MINISTRY OF AGRICULTURE AND LIVESTOCK

Animal movement control

MAPA provides national regulation and coordination while State Veterinary Services perform registry and field controls.

1. Animal identification at farm level
2. Registry in official or certified databases
3. Movement authorized through GTA
4. Records updated at destination
5. Trace-back/forward investigation supported by integrated databases

Eletronic ANIMAL MOVEMENT PERMIT (e- GTA)



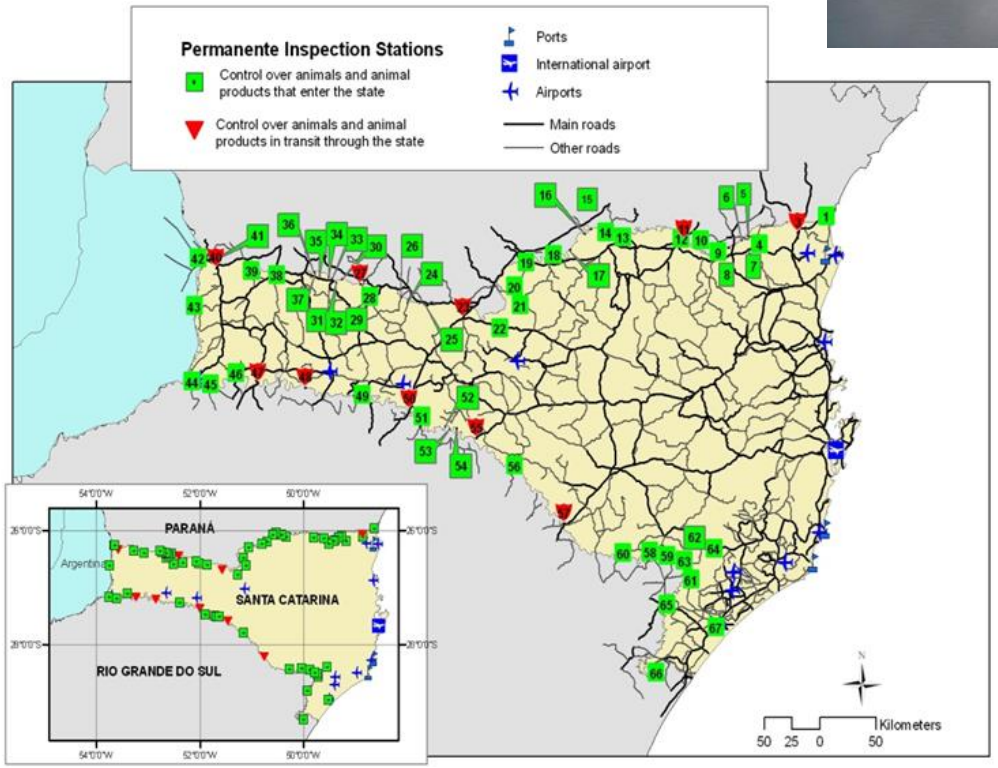
MINISTRY OF AGRICULTURE AND LIVESTOCK

Animal movement inspection

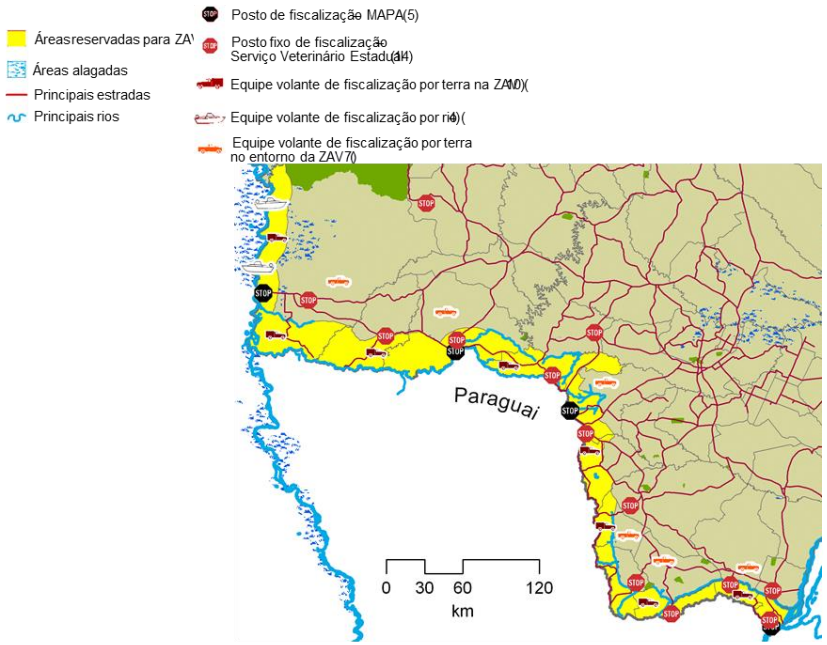








- Veterinary checkpoints and road inspections check GTA compliance
- Inspectors validate sanitary requirements, vaccination status and animal identification
- Non-compliant movements may be stopped, fined, seized and investigated



Animal movement control and border protection

Reducing risk while preserving livestock flows

Public responsibilities

- Define movement rules, standards, coordination
- Issue animal movement authorization (GTA)
- Maintain official lectronic system, database and traceability
- Inspect borders, entry/exit points and high-risk routes - check points and mobile inspection teams
- Apply movement restrictions - movement supension, blocking the establishment, penalties
- Accreditation of private veterinarians

Private responsibilities

- Keep holding and herd records updated
- Request and comply with movement authorization
- Respect quarantine / destination rules
- Provide accurate information
- Issue animal movement authorization (accredited veterinarians/producers)
- Private resources for inspections

Partnership effect

- Better risk intelligence – movement patterns and routes, epidemiological links, supporting risk-based inspections
- Faster tracing back and forward during disease investigation
- Better prevention of disease spread
- Stronger border-area cooperation
- Higher compliance for certification

Passive surveillance - animal disease reporting and investigation

Mandatory Immediate Reporting

- ✓ Owners
- ✓ Private Vets
- ✓ Third Parties
- ✓ Labs and universities

Suspected case

VS clinical-epidemiological investigation

Does it meet the probable case criteria?

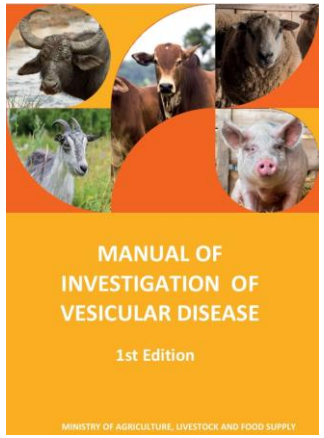
no → **Suspicion ruled out** → Investigation concluded

yes

Probable case

Official Veterinary Investigation

- ✓ Samples for laboratory diagnostic
- ✓ Control measures
- ✓ Epidemiological links - tracing



Samples for official laboratory testing

Does it meet the confirmed case criteria?

no → **Ruled out case** → Investigation concluded

yes

Confirmed case → **Emergency diseases** → **Emergency Contingency plan**

Case definition

Suspected
Probable
Confirmed



National management of investigation by VS

Electronic system

real-time integrated access for VS (local, regional and national)

e-SISBRAVET

MINISTRY OF AGRICULTURE AND LIVESTOCK

Seroepidemiological surveillance

Main objective

Support recognition of FMD-free status

Specific objective

Demonstrate absence of viral infection/transmission

General approach

- Definition of epidemiological subpopulations
- Probabilistic sampling by rural holdings and animals
- Clinical and serological surveillance
- Follow up/additional investigation in holdings with seropositive reactors - epidemiological links

✓ **Integration of clinical, serological, virological and epidemiological investigation to demonstrate absence of viral infection/transmission**

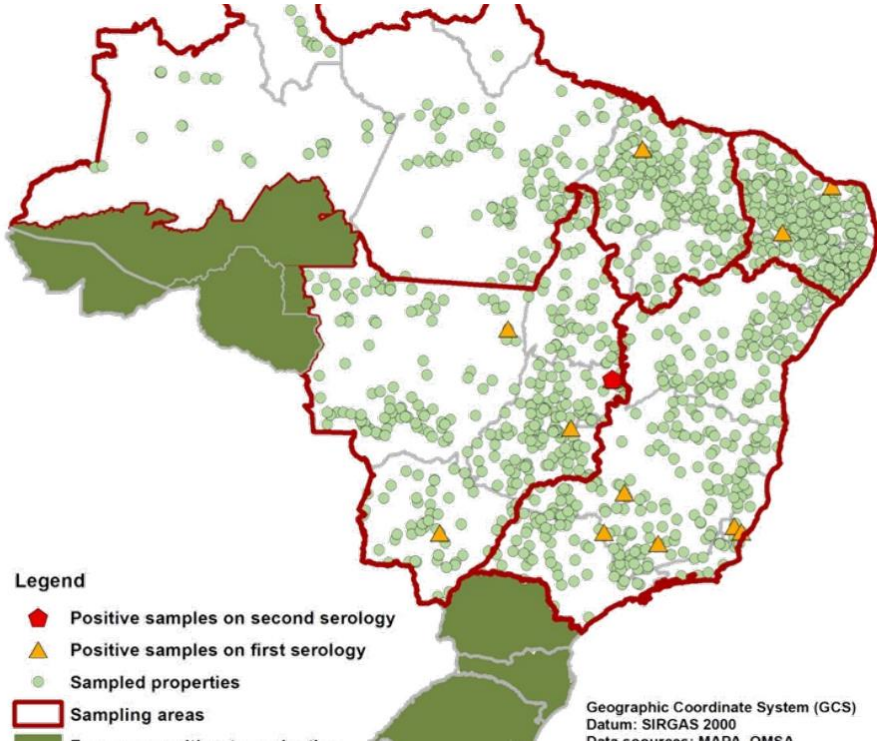
MINISTRY OF AGRICULTURE AND LIVESTOCK

Seroepidemiological surveys - FMDV transmission

Evidence to support recognition of FMD-free zones

Demonstration of absence of viral transmission

2024: 1.374 herds/19.000 samples



Sampling areas + sampled properties + follow-up serology

Strategy

1. **Definition of subpopulations**
   Geographic and production characteristics; risk.
2. **Two-stage sampling**
   Selection of PSU - random/risk-based holdings; random sampling cattle/buffaloes aged 6–24 months.
3. **Detection parameters**
   95% confidence; 95% diagnostic sensitivity; 100% specificity (after follow-up investigation).
4. **Follow-up seropositive sample/animal**
   Paired sampling, clinical inspection, epidemiological links and viral investigation.

The approach combines territorial stratification, probabilistic sampling, serological surveillance and follow-up investigation to produce evidence for certification.

Statistical parameters

Confidence	Diagnostic Se	Specificity	Herd prevalence	Within-herd prevalence
95%	95%	100%	0.5 - 2.0%	5 -10%

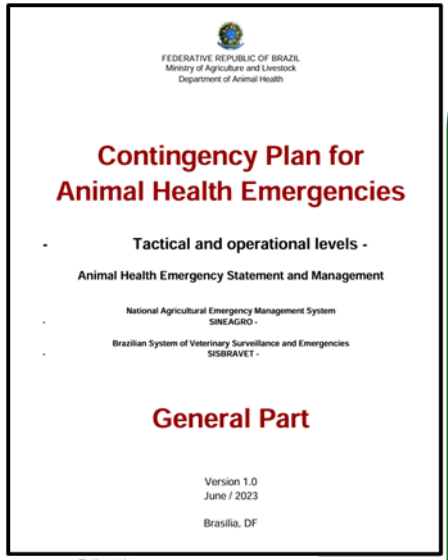
* considering complementary investigation

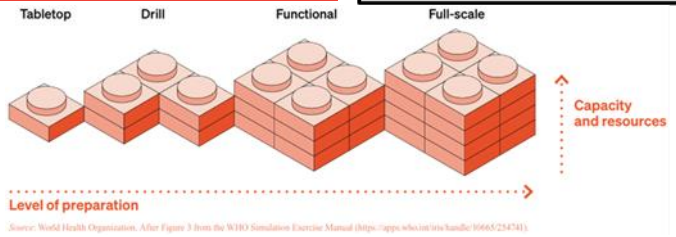
Emergency Preparedness – Contingency Planning

Public responsibilities

- Legal framework - Coordination
- Surveillance guidelines / emergency strategies
- Diagnostic capacity
- Contingency planning / simulation
- Capacity Building
- Interinstitutional coordination
- Logistics
- Compensation
- Antigen/vaccine banks
- Communication









Private responsibilities

- Timely reporting
- Biosecurity
- Compliance with movement regulations
- Integration into operational and communication arrangements
- Logistical support
- Industry coordination
- Management of emergency private funds for operations and compensation
- Management/ funding antigen/vaccine banks

FESA/MT - Private Fund - Animal Health Emergency Fund

Transparency, shared governance, trust

FESA/MT
Fundo Emergencial de Saúde Animal do Estado de Mato Grosso

- Since 1994: private initiative - Non-Profit Organisation
- Producers, Meatpacking Industry and VS
- Contribution: automatic fees : GTA for slaughter
- Amount : aprox. US$ 50 million (2025)
- 50% for compensation in emergency animal diseases
- 50% for infrastructure, operations in prevention, farm and border inspection, capacity/training, vaccination campaigns
- Management: private sector + INDEA/MT and MAPA
- Independent external audits



Sustainability of surveillance and prevention - political and producer ownership of the FMD programme

MINISTRY OF AGRICULTURE AND LIVESTOCK

Designing an FMD-Free Zone

Zone designing combined science, private sector engagement and sustainability

1 Identification of the area

Define geographic and geopolitical boundaries for the proposed FMD-free zone.

2 Border feasibility

Prefer limits that make movement control feasible: natural barriers, livestock-production interfaces, roads, markets and animal transport routes.

3 Impacts assessment

Evaluate social and economic effects and dependence on products from outside the proposed zone.

4 Technical proposal

Surveillance, movement data, veterinary service organization, laboratory capacity and emergency response evidence.

5 Sustainability

Discuss rules and commitments with producers, industry and political leadership before formal recognition.

P Producers contribution

• validate feasibility of boundaries and check points • keep animal/holding records updated • comply with movement rules • timely reporting of suspect cases • support surveillance, communication, preparedness and co-financing

Sustainability of a zone depends on producers understanding, accepting and complying with the rules.

Animal Health System

Shared Responsibilities

MAPA

- National coordination (regulations, programs and strategies)
- Surveillance and information systems at national level
- Laboratory diagnosis
- Registration and inspection of veterinary products
- International relations
- Technical and financial support to SVSs
- Auditing quality of veterinary services and accredited private services
- Coordination of national movement control - inter-state/inter-zones
- International borders surveillance and movement control
- Inspection at slaughterhouses - for export and interstate trade

State Veterinary Services

- State coordination (complementary regulations)
- LVUs and field activities
- Epidemiological surveillance
- Information systems
- Animal movement control
- Response to disease occurrences
- Registration of holdings, producers and herds
- Surveillance of veterinary products trade and use
- Education and awareness in animal health
- Inspection at slaughterhouses - domestic market
- Inspection at livestock markets, fairs, auctions
- Laboratory diagnosis - for transit / trade

Private Sector

- Compliance with legal regulations
- Inform and update herd records
- Comply with animal movement requirements
- Timely notifiable diseases reporting
- Herd health management (vaccination / treatment)
- Biosecurity
- Use of approved technologies
- Animal identification
- Political support to the Veterinary Services
- Participation in forums for discussions and decision making on animal health
- Private funds for animal health emergencies and maintenance of VS
- Accreditation for animal health programmes

Results / sanitary certification

MAPA: final certification of animals and products

SVSs: primary certification

Private Sector: compliance

Thank you!

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MINISTRY OF AGRICULTURE AND LIVESTOCK