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## **An Australian Framework for Responses to Unusual Outbreaks of Animal Disease<sup>1</sup>**

**Submitted by Australia**

### **I Introduction**

1. The health of its livestock industry is of primary importance to Australia. We recognise its importance to the region, also. Spurred by the Foot and Mouth (FMD) outbreak in the United Kingdom in 2001 and the lessons learnt there, Australia has reviewed its national response to similar possible events. Current preparedness and response plans, particularly for FMD, are highly developed and are used as a basis for planning by some other countries (see [www.aahc.com.au/preparedness/index.htm](http://www.aahc.com.au/preparedness/index.htm)).

2. The Council of Australian Governments' (COAG) has recognised, *inter alia*, the need for a whole-of-government effort to manage significant outbreaks of animal disease. To support a national whole-of-government framework a Memorandum of Understanding between Heads of Government has been developed to cover issues such as trigger points for activating national plans, roles and responsibilities of the various parties who would act in an emergency including veterinary services, emergency services, support agencies and industry.

3. Historically, it is worth noting that Australia is free from FMD and has been since the late 1800s. Several cases occurred when imported animals were held in quarantine in the mid 1800s. These animals were destroyed. Small outbreaks occurred on two farms in the State of Victoria in

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<sup>1</sup> This paper draws heavily on *Foot-and-Mouth Disease Emergency Preparedness Strategy And Evaluation – The Australian Perspective* J.G. Murray, R. J. Butler & P. L. Svarcas of the Australian Department of Agriculture, Fisheries and Forestry, 2002.

1872 probably associated with the importation of contaminated straw. The animals were destroyed. A subsequent Commission of Inquiry led to enhanced quarantine arrangements in Australia.

4. A number of key work activities have been undertaken to support the whole-of-government approach. These include legislative amendments, a review of all jurisdictional animal disease and emergency plans, training and extension, agreement to a government/industry cost sharing arrangement and an examination of relief and recovery options. The Commonwealth of Australia has provided significant funds to enhance border protection.

5. Underpinning these activities is a series of technical/scientific issues. These include improved epidemiological/economic modelling, zoning arrangements, surveillance and monitoring, vaccination policy and supply, management of feedstuffs, laboratory capacity, feral animal risk, carcass destruction and disposal and animal welfare.

6. These activities have been tested and are currently being refined by ongoing simulated exercises in Australian States and Territories. An associated exercise was undertaken on conditions and criteria that would be applied to establishing zonal freedom.

7. In 1955 a Cost Sharing Agreement for any future FMD eradication efforts was signed by Australian governments, and subsequently updated to include 13 exotic diseases, such as other vesicular diseases. Since 1989, industry and government have cooperated on emergency livestock disease preparedness under jointly funded formal 'partnership' arrangements (EXANDIS) which were subsumed into Animal Health Australia in 1996. Animal Health Australia is a not-for profit public company established by governments and livestock industries, whose stated objective is to facilitate a national approach to enhancing Australia's animal health status through effective partnerships.

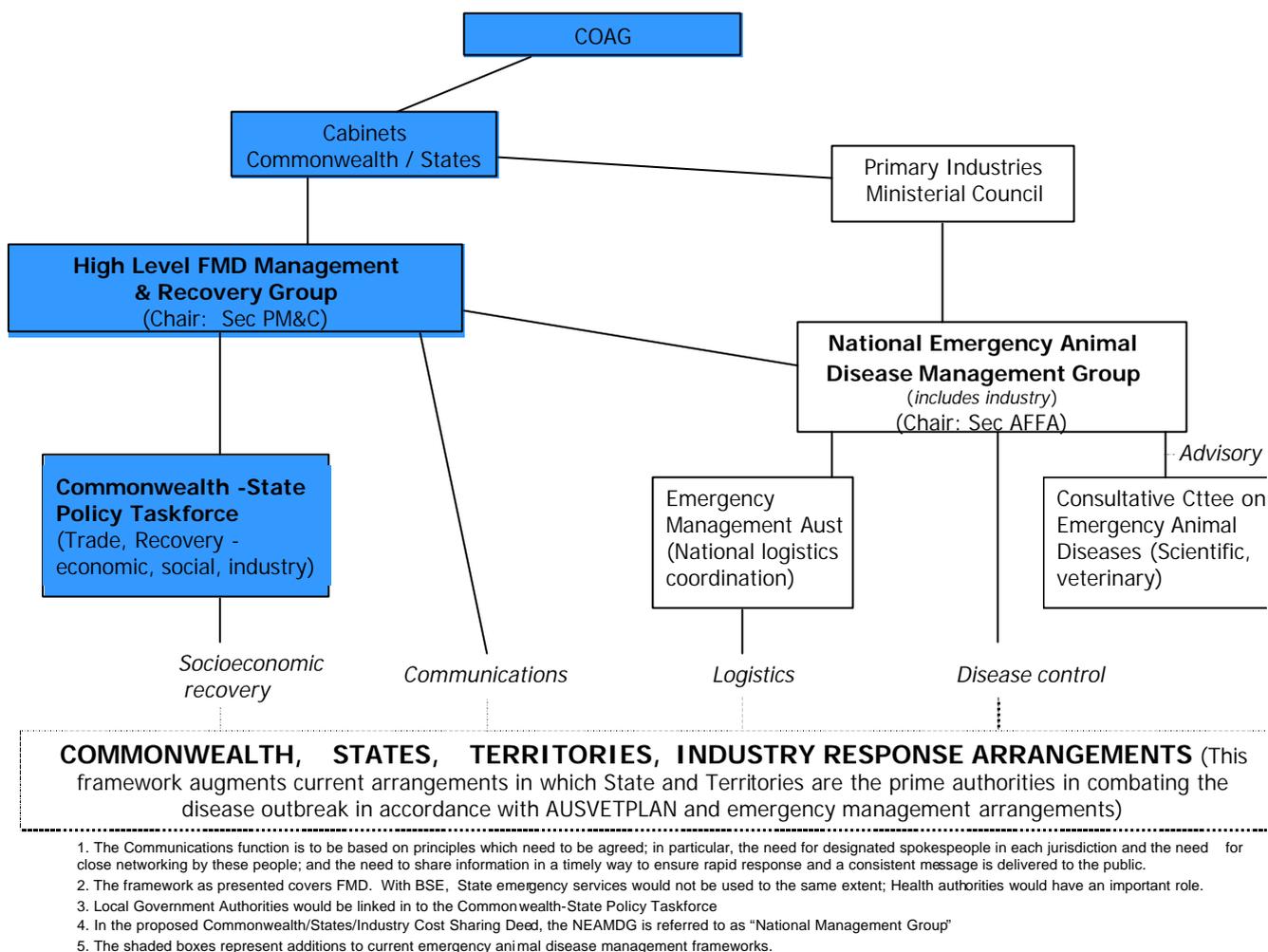
## **II A modified approach**

8. The global FMD risk remains high due to the emergence and spread of new strains of differing epidemiology, and the growth in international trade, tourism and illegal activities such as smuggling. Key issues driving better controls include the perils of ineffective quarantine controls, deficient legislative powers, lack of pre-planning, insufficient awareness and training, inadequate resources and compensation incentives, inadequate animal identification, and ignoring social and economic recovery. For Australia a whole-of-government approach in partnership with industry is essential for emergency disease preparedness, response and recovery measures following an outbreak. This approach must include exhaustive pre-planning, with clearly defined organisational roles and responsibilities and tasks allocated to teams with the appropriate skills.

## **III The new whole-of-government approach**

9. In 2002, COAG established a new national framework for managing an outbreak of FMD, but it is one which will be equally effective for other similar emergencies. The resulting national framework is diagrammatically represented in Figure 1. In the case of FMD, COAG established an FMD Taskforce overseen by COAG Senior Officials. The framework includes COAG (or a subset

of affected jurisdictions) as the peak body for a major animal disease emergency, supported by an FMD management and recovery group. This group would comprise the chief executives of a number of Commonwealth and State agencies directly involved with the emergency and would be chaired by the Department of Prime Minister and Cabinet to ensure national consistency of whole-of-government actions.



**Figure 1 National FMD Coordination Framework**

10. The following important principles and arrangements underpin the framework, it:
- (a) caters for national decision making (i.e. collective decisions, involving all levels of government and industry, necessary for an effective response);
  - (b) augments current arrangements in which State/Territory governments are the primary decision makers in combating the disease outbreak in accordance with AUSVETPLAN and emergency management arrangements;

- (c) coordinates disease management utilising agencies and staff with appropriate skills;
- (d) ensures coordination of the national responses to the economic and social consequences of the outbreak utilising agencies and staff with appropriate skills;
- (e) provides flexibility and responsiveness, allowing for rapid decision making;
- (f) provides an effective framework for communication, under the oversight of the High Level Group and involving close liaison with all parties, which will ensure all relevant information concerning the outbreak and its consequences is obtained from stakeholders, and that consistent messages are provided.

11. To support this national framework, a Memorandum of Understanding between Heads of Government has been developed to cover issues such as trigger points for activating national plans, and roles and responsibilities of the various parties who would act in an emergency, including veterinary services, emergency services, support agencies and communications groups.

#### **IV Updating the primary industries' approach**

12. In recognition of a need to ensure that the primary industries' component of Australia's prevention and response arrangements were aligned with the changing risk profile of FMD and BSE, agricultural Ministers established the National Management Group (NMG) on FMD and animal transmissible spongiform encephalopathies (TSEs) in March 2001. NMG consisted of representatives from Commonwealth and State agriculture departments, the Commonwealth health department, agriculture industry associations and consumer associations. NMG developed detailed risk management frameworks to review and update preventative and response measures, using the quarantine continuum of pre-border, border and post-border as a template, and applied the same broad principles to both FMD and TSEs. Outcomes relevant to FMD are outlined below.

##### **Pre-Border Aspects**

13. Priority has been placed on keeping up to date with new scientific knowledge about the FMD virus, particularly the emergence of new strains, modes of transmission, improved diagnostic tests and the best control and eradication methods. Australia has cooperated internationally on FMD through World Organisation for Animal Health (OIE) standard-setting processes to ensure that the latest scientific knowledge is incorporated into international standards, as well as having participated in other relevant forums such as the Food and Agriculture Organisation, the International Vaccine Bank and the Quadrilateral Group of countries.

14. A high priority for government and industry is Australia's key role in the cooperative development of regional FMD monitoring, surveillance and emergency management activities, through initiatives such as the Northern Australia Quarantine Strategy involving neighbouring countries. In addition, the Australian Agency for International Development (AusAID) provides funding to assist the implementation of the OIE's Southeast Asian FMD Campaign. Australia's Chief Veterinary Officer, in his role as the President of the OIE Regional Commission for Asia the Far East and Oceania, chairs the Southeast Asian FMD Advisory Committee. Australia has also established bilateral cooperative arrangements on emergency management with countries including the People's Republic of China, Taiwan, the Republic of the Philippines and the Republic of Korea.

## **Border Aspects**

15. Australia was one of a number of countries that significantly strengthened quarantine controls during 2001 in response to the global FMD threat. Import conditions for animals and animal products, and screening of passengers, mail and cargo from FMD affected countries were reviewed and adjusted where appropriate. In May 2001, the Australian Government announced additional funding of \$A596 million over four years to boost border quarantine. The extra funding has allowed Australia to increase inspection rates towards a target of one hundred percent intervention for international mail, freight and luggage/passengers. In practical terms that has meant more back-scatter x-ray units, that reveal colour images of organic material, and more dog teams and inspection personnel at international ports, airports and mail centres around Australia to intercept materials capable of introducing diseases and pests.

## **Post-Border Aspects.**

16. A number of key work activities have been undertaken within this framework to support the whole-of-government approach. These are summarised below under administrative and technical headings.

### Administrative

17. The new Cost Sharing/Emergency Animal Disease Response Agreement (established between Federal, State and Territory governments in Australia), covering sixty-four diseases including FMD, was formally ratified in early 2002. This agreement formalises pre-determined funding arrangements for exotic disease incursions and a commitment to provide a rapid and effective response. The new Agreement significantly enhances the previous Agreement because it provides for direct industry involvement in funding and in the decision making process.

18. Recent amendments to the *Quarantine Act 1908* enhanced legal powers in the event of a major emergency animal disease outbreak such as FMD. In broad terms, the amendments to the Act provide for the Commonwealth to authorise State or Territory agencies to take necessary actions under the Commonwealth's quarantine powers, known as coordinated response powers. The new provisions can be used to enhance the legislative authority of States and Territories, who have constitutional responsibility for animal health matters, where their own legislation is inadequate. The amendments also introduced a new offence for the smuggling of quarantine risk material with significant increases in penalties. Additionally, the scope of quarantine was amended to clarify that quarantine measures extend to the destruction of animals, plants or other goods and the destruction of premises where treatment is not practical.

19. An integrated national emergency animal disease information management capability, with uniform business rules and standards for animal health field and laboratory information, is being progressed. A well-established system continues to be available to assist the management of the technical disease response, pending development of an enhanced system.

20. Current animal health awareness campaigns are being strengthened to raise awareness of the critical importance of early reporting of unusual signs of illness or deaths in livestock and of the early detection of an FMD incursion. These campaigns target key front-line groups such as veterinarians, farmers, stock handlers and parks and wildlife personnel. In addition, in an effort to stamp out illicit activity such as swill feeding, some government jurisdictions have launched awareness campaigns and have significantly increased penalties.

21. In May 2002 it was confirmed that livestock tracing through a national livestock identification system was a critical issue for disease control and market access. Existing comprehensive systems, that facilitated the eradication of bovine tuberculosis and brucellosis, will be improved to more accurately track movements of susceptible species. A whole-of-life cattle identification system, that was initially developed and implemented on a voluntary basis, was mandated in the State of Victoria in 2002, with plans for progressive, mandatory implementation in other jurisdictions during 2004 and 2005. A policy was also developed to implement a total livestock standstill within a region or State in the event of a suspect FMD case.

#### Technical

22. In light of the European experience, the technical aspects of the AUSVETPLAN disease strategy manual for FMD have been updated. The strategic use of vaccination as a tool to assist disease control and eradication in a large-scale outbreak has been re-evaluated in line with international developments. A review has been undertaken to ensure that the most suitable contingency arrangements are in place to guarantee a reliable supply of appropriate FMD vaccine, if and when required.

23. The internationally recognised diagnostic capabilities of the Australian Animal Health Laboratory (AAHL) have been enhanced, and capacity increased through automation, to support disease containment and eradication. AAHL continues to liaise with overseas laboratories on the development and validation of new more sensitive assays. Staff at State and Territory regional laboratories have been trained and equipped to support the national laboratory in the event of an outbreak of FMD.

24. A detailed epidemiological study was conducted to establish a set of three FMD outbreak scenarios, ranging in their scope from small through to large. The scenarios will be used for a range of FMD preparedness activities including assessing resource implications of various control strategies, potential laboratory testing requirements, zoning studies and socio-economic modelling.

25. A technical working party has reviewed the risk of feral animals and FMD. The working party confirmed that much of the necessary work addressing the role of feral animals with respect to FMD has already been done, while also advising on future research and policy development. The working party supported government action to apply a practical risk assessment approach to planning for the event of entry and spread of FMD in feral animal populations and the implementation of control measures where high-risk situations are identified.

26. The Emergency Animal Disease Preparedness Program provides a standardised competency-based approach to the training of government officials and industry representatives who are likely to be involved in the management of a disease outbreak. To complement this, Governments are undertaking equivalent localised training activities. In recent years more than one hundred Australian veterinarians and emergency managers have gained invaluable experience assisting with FMD eradication efforts overseas.

27. Reviews of policies concerned with the conservation of valuable animal genetic material, the utilisation of international and private veterinarians in a disease emergency, animal welfare and alternatives for carcase disposal were also initiated. An improved understanding was developed of the ways farmers can reduce the risk of disease transmission through on-farm biosecurity measures. The risk that swill feeding could facilitate the introduction and spread of FMD led to a comprehensive review and audit of Australia's strict swill feeding controls in each State/Territory.

## **V National FMD Simulation Exercise**

28. A national simulation of an FMD outbreak (Exercise Minotaur) was held in September 2002. It was one of the largest and most complex emergency exercises of its kind ever held in Australia. The simulation involved all levels of government, as well as industry and was oversighted by international observers.

29. The simulation tested Australia's national arrangements for managing post-border aspects of an FMD outbreak. The first phase tested Australia's capacity to develop a full submission for international assessment of regional zoning, based on the FMD outbreak scenarios developed by epidemiological study.

30. The simulation tested, also, integration and functional capacity of national arrangements for the management of an FMD outbreak, including socio-economic consequences. The aim of the exercise was to test the decision-making and communication links in a whole of government sense. Such simulation exercises are essential if bureaucratic and organisational structures are to be tested and refined. The lessons learned from these exercises have been or are being progressed. These include issues associated with vaccines, information systems and laboratories detailed above, as well as updating communications plans, reviewing the Emergency Animal Disease Response Agreement, and finalising arrangements to draw on additional national and international resources. This last point includes a Rapid Response Team, drawn from larger jurisdictions to assist smaller jurisdictions in an animal health emergency, and updating the International Veterinary Reserve to include Australia, the United States, Canada, New Zealand, the United Kingdom and Ireland. An Australian Veterinary Reserve is being established that involves non-government veterinarians in government programs, initially by providing paid training in national emergency animal disease preparedness.

## **VI Conclusion**

31. Australia has responded to the international spread of FMD in recent years by developing and implementing strategies designed to enhance animal health emergency management

arrangements. The emphasis has been on nationally focused prevention, response and recovery activities, in association with international cooperation on standards and disease control. The whole-of-government approach being taken will significantly improve Australia's ability to prevent, manage and respond to an incursion of FMD, or similar outbreaks. Therefore, it is essential that Australia maintains a high standard of animal health emergency management at pre-border, border, and post-border sectors through a process of continuous improvement.

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