

Report to:

The Director-General
Ministry for Primary Industries
Wellington

The Deputy Director-General
Biosecurity New Zealand
Wellington

The Hazard Risk Board
National Security System
Wellington

Ministry for Primary Industries
Manatū Ahu Matua



Biosecurity New Zealand

Ministry for Primary Industries
Manatū Ahu Matua



Exercise Whakatau Kōrero



A New Zealand All-of-Government Biosecurity Exercise within the
National Exercise Programme

December 2019

In Confidence

Released under the Official Information Act 1982

Acknowledgements

The Lead Evaluator acknowledges the contribution of the Ministry for Primary Industries' Exercise Whakatau Kōrero¹ Planning Team led by David Boag and Blake Dearsley for their work in planning the exercise and managing engagement with participating stakeholder representatives and their agencies. Zoe Juniper provided key insights and contributions to the workshops' design and subsequent reporting.

Engaging external agency contributors to inform participants on contextual operational matters and potential impacts of a FMD outbreak was a key success factor. Speakers from the Department of Prime Minister & Cabinet, The Treasury, Reserve Bank of New Zealand, Ministry of Foreign Affairs & Trade and Ministry of Civil Defence and Emergency Management (now National Emergency Management Agency) provided essential perspectives. Technical and experiential inputs on biosecurity from many Ministry for Primary Industries' officials also ensured participants were well briefed.

This evaluation was supported by personnel from MPI's Audit, Risk and Evaluation team in Compliance and Governance for the development of the evaluation framework of Exercise Whakatau Kōrero. In particular, Claudia Recker and the analysts that collected, collated and analysed data and information across the workshop series.

Limitations and disclaimer

This report was prepared solely in accordance with the specific terms of reference between the independent Evaluator and the Ministry for Primary Industries ("Ministry"). Other than our responsibilities to the Ministry for this evaluation, the independent Evaluators or their organisations do not undertake responsibility arising in any way from reliance placed by a third party on this report. Any reliance placed is that party's sole responsibility. We accept or assume no duty, responsibility or liability to any other party in connection with the report or this engagement, including without limitation, liability for negligence in relation to the factual findings expressed or implied in this report.

The report is based upon information provided by the Ministry, its employees and other exercise participants. We have considered and relied upon this information. We have assumed that information provided was reliable, complete and not misleading. The information provided has been considered through analysis, enquiry and review for the purposes of this report. However, we do not warrant in any way that this evaluation has identified or verified all of the matters which an audit, extensive examination or due diligence investigation might disclose.

The statements and opinions expressed in this report have been made in good faith and on the basis that all relevant information for the purposes of preparing this report has been provided by the Ministry and other exercise participants and that all such information is true and accurate in all material aspects and not misleading by reason of omission or otherwise. Accordingly, we do not accept any responsibility or liability for any such information being inaccurate, incomplete, unreliable or not soundly based, or for any errors in the analysis, statements or opinions provided in this report resulting directly or indirectly from any such circumstances or from any assumptions upon which this report is based proving unjustified.

This report dated December 2019 was prepared based on the information available at the time. We have no obligation to update the report or revise the information contained therein due to events and information subsequent to the date of the report.

Structure of this report

Part One: Executive Summary (including findings and recommendations)

Part Two: Detailed analysis of findings, which led to Evaluator's recommendations

Part Three: Appendices

¹ Whakatau Kōrero translates to 'Decision making'

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Executive Summary

Background

Since 2011 when the Officials' Domestic and External Security Committee (ODESC) approved, and the Ministry of Agriculture and Forestry (now the Ministry for Primary Industries [MPI]) published the Whole-of-Government Biosecurity Response Guide, responses to major biosecurity events in New Zealand fall within the National Security System (NSS).

In 2016 MPI updated New Zealand's biosecurity strategy, publishing 'Biosecurity 2025 Direction Statement for New Zealand's biosecurity system'. This was followed in 2018 by 'The New Zealand Government Biosecurity Response Guide' [BRG] and 'The New Zealand Government Foot and Mouth Disease Response and Recovery Plan' [The Plan].

ODESC and its subsidiary committee the Hazard Risk Board (HRB) oversee and coordinate the National Risk Register and a key risk control activity, the National Exercise Programme (NEP). Foot and Mouth Disease (FMD) is registered on the National Risk Register as a high priority hazard.

NEP delivers exercises at various levels to test preparedness of key elements of the NSS. In 2018 HRB authorised a national biosecurity response exercise to test elements of the All-of-Government (AOG) preparedness to support MPI/Biosecurity New Zealand in leading a biosecurity response to a Foot and Mouth Disease (FMD) outbreak. Exercise Whakatau Kōrero was planned within the NEP framework to deliver an exercise to both test elements of the FMD Plan but also to provide outputs to inform the next stage of FMD Planning – an AOG Immediate Action/Initial Response Plan².

The Exercise

Whakatau Kōrero was planned as a coordinated series of eight discussion exercise (DiscEx) workshops running from 4 July 2019 and culminating in a full day DiscEx on 26 September 2019.

The Exercise was an overall success, with evaluative assessments made for:

- Four national exercise objectives and one sub-objective; and
- Four exercise objectives.
- Three national objectives were **Achieved**, and one **Partially Achieved**. The sub-objective was **Partially Achieved**.
- Three exercise objectives were **Achieved**, and one **Partially Achieved**.

² MPI already has biosecurity plans in place to respond to a FMD incursion. Exercise Whakatau Kōrero highlighted the benefits for expanding existing operational plans to include all relevant agencies and their role and/or responsibilities.

The Exercise and the Evaluation designs focused on testing and evaluating the 'all of government response' at a system level rather than at an agency level. This design also enabled both the operational response to an incursion, and the scope and nature of strategic implications involved in such a response to be promoted to participants and enabled self-diagnosis of individual agency preparedness.

Planning and direction by MPI and the contracted Facilitator delivered a high-quality exercise. For all eight workshops, almost all participant feedback rated the exercise workshops as Good or Excellent. The overall facilitation of the exercise was also rated Good or Excellent by 99% of respondents. Exercise participants reported they valued the opportunity to interact with a wide group of agencies throughout the workshop series and also with representatives of the primary industry sector in the concluding workshop.

*"Excellent day.
Interactive, very well
facilitated, learnt so much
from other participants"*

- Participant agency

The exercise workshop themes drew on a range of different areas of expertise and provided participants with a wide view of a national response to, and potential impacts of a FMD biosecurity incursion. This was seen as a significant benefit, emphasising the need for collaboration and networking amongst agencies that was acknowledged by the majority of participants.

Another indicator of success was the acknowledgement that Whakatau Kōrero provided a learning opportunity that highlighted for many participants a need to review their own agency's preparedness to contribute to a FMD biosecurity emergency.

Participation

Over 200 participants from 24 agencies, including MPI, attended the exercise across the eight workshops. This represents almost 800 participant hours.

MPI SMEs, requiring almost 200 hours input, supported all eight workshops. The Exercise Whakatau Kōrero Planning Team (MPI officials and contractors) also provided 200 hours input during workshop delivery.

24 NZ Agencies, industry representation and the Australian Government Department of Agriculture participated in Whakatau Kōrero.

In total 1200 hours of active involvement in the exercise workshop series was achieved by representatives of 24 government agencies, 4 industry bodies and the Australian Government Department of Agriculture.



Evaluator Observations

During the Research and Design phase of the exercise the Lead Evaluator was apprised of a body of international research in relation to FMD outbreak readiness and management. The 2001 UK FMD emergency experience and subsequent reporting highlighted the wide impact of an outbreak on the social environment of a country and its communities³. These impacts are now being reported as persistent in some communities and inter-generational in nature.

In 2013 the New Zealand Auditor-General (OAG) conducted a review of MPI's preparation for and readiness to respond to biosecurity incursions, including FMD. In March 2019 the US Government Accountability Office (GOA) reported on an audit of the US Department of Agriculture's (USDA) preparedness to manage a FMD outbreak.

There are similar themes in the recommendations of both the OAG and GOA reports, including the need for significantly enhanced planning by both the lead and support agencies. Both reports identify improvements being made, but point to 'significant weaknesses' that remain, and the need for the development of remediation plans and active performance reporting of the remediation process.

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The US GOA has utilised an independent audit of all agencies' FMD readiness plans and preparations to contribute to a FMD emergency response. This may be a useful model for application in New Zealand to bring about a step change in FMD preparations. It would enable the Director-General MPI and HRB to receive advice that would meet a critical 'due diligence' test for agency executives and provide assurance that a degree of trust and confidence could be placed in New Zealand's FMD preparations.

The US GOA has utilised an independent audit of all agencies' FMD readiness plans and preparations to contribute to a FMD emergency response.

Other key observations (drawn from the findings & recommendations) from the evaluation include:

- The scenario of a biosecurity incursion by FMD, a high-risk hazard organism, expanded the concept of national security risk for many government officials;

³ Case study on UK 2001 FMD outbreak in book "Who's In Charge?: Leadership during Epidemics, Bioterror Attacks, and Other Public Health Crises", Laura H. Kahn

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- A FMD response has the unique features of:
 - a 'National Livestock Standstill' that immediately requires a nationwide effort with commensurate impacts;
 - an immediate withdrawal of export certification for at-risk primary produce that will require a global management effort;
 - whereas other emergency responses usually have a finite locus that may expand over time to a wider regional area, a FMD response would actively involve all geographic regions of the country from the outset; and,
 - the psycho-social impacts of a FMD incursion would have a similar national reach.
- Continuing the theme of biosecurity threats in the exercise programme for the NSS is strongly supported by both government agency officials and agricultural and allied industry representatives attending Exercise Whakatau Kōrero;
- The four work stream workshops illuminated the inherent tensions and synergies that can exist between work stream specific objectives (e.g. Biosecurity – Stamp out the disease; Welfare - Minimise the adverse impacts upon the welfare of individuals, families and communities; Recovery - Restore and recommence international trade in primary produce as early as possible) requiring trade-offs and compromises to achieve the best outcome(s) overall for New Zealand;
- A core group of agencies were able to demonstrate a level of understanding of their potential role in a FMD emergency. It was disappointing that representatives of other agencies were not sufficiently aware of the threat a significant biosecurity incursion would pose for New Zealand at all levels of society. There was no evidence that their agencies as yet had in place readiness plans, nor that they had assessed the probable impact on their agency's domain of influence and the possible challenges to their agency's business continuity capability during a FMD emergency response; and,
- FMD was initially seen by many agencies as 'an agricultural sector and MPI-specific challenge to overcome'. This was appropriately addressed through the quality of guest speakers who described the wide-reaching societal impacts of a FMD outbreak.

"FMD is not just a biosecurity issue, it's a national economic issue and an AoG approach is needed"

– Exercise participant

Assessment of Exercise Objectives

The National Objectives; Exercise Objectives and Key Performance Indicators (KPI) are detailed in the Evaluation Plan at Appendix B. High level discussion of the findings that support the assessments is set out below.

National Objectives

The exercise was delivered within the NSS NEP framework. MPI determined the National Objectives (NOs) relevant to the exercise that required inclusion were: 1.0; 3.0; 4.0 & 8.0. One national sub-objective (NO 2.4) was evaluated.

#	National Exercise Objective	Assessment
1.0	Lead a coordinated inter-agency response to major security incidents including overseas agencies where necessary	ACHIEVED
2.4	Support the interagency response to the significant incident or emerging threat in accordance with the lead agency's emergency plan, action plan, CIMS and legal/policy frameworks	PARTIALLY ACHIEVED
3.0	Enable high level all-of-government decision making through the National Security System	ACHIEVED
4.0	Integrate recovery planning and arrangements into the response	ACHIEVED
8.0	Integrate previous lessons identified from interagency activities to engender a culture of continuous improvement	PARTIALLY ACHIEVED

Exercise Objectives (specific to FMD)

The exercise design reflected the two-pronged approach set out in the 2018 FMD Plan:

- A mixture of immediate activities to contain the disease in the first 72 hours of an FMD outbreak; and
- While the immediate activity proceeds, assessing the situation to inform strategic-level decisions and response and recovery planning

#	Exercise Objective	Achievement
1	Agencies validate the four national inter-agency workstream plans for response and recovery.	ACHIEVED
2	The Strategic Advisory Group (StAG) concept and process is validated.	PARTIALLY ACHIEVED
3	Effective strategic inter-agency decision making processes are explored.	ACHIEVED
4	Improvements in national-level biosecurity readiness are identified.	ACHIEVED

Findings



Nineteen Findings emerged from Whakatau Kōrero. They have been clustered into one of the five groups shown above. Each Finding is uniquely numbered, with page number reference for further detail within this report.

FMD Response Planning

- The Ministry for Primary Industries plans to develop an All-of-Government (AOG) Foot and Mouth Disease Immediate Action Plan for the first 72 hours of an outbreak response, modelled on other National Security System documents - the Wellington Earthquake National Initial Response Plan and the National Counter Terrorism Handbook [Finding 6, Page 29]
- Exercise Whakatau Kōrero illustrated that the current status of support agencies' understanding of the national implications of a Foot and Mouth Disease incursion, their readiness planning, preparation and capabilities is not yet sufficiently mature to enable the development of an aligned all-of-government Foot and Mouth Disease Immediate Action Plan for the first 72 hours of an outbreak response [Finding 7, Page 29]
- The Strategic Advisory Group (StAG) concept requires further work to determine its key customer (who it reports to) and clear value proposition. [Finding 13, Page 41]
- The Ministry for Primary Industries' approach to FMD planning has to date been significantly influenced by the scientific and technical base and culture of Biosecurity NZ. The Exercise illuminated the future need for planning to be more inclusive and acknowledge the existent tensions with New Zealand's community, cultural and ethical expectations. [Finding 16, Page 44]
- The use of the RASCI framework was a practical method to highlight the type of involvement agencies would have in a FMD emergency response. [Finding 18, Page 45]
- The Exercise highlighted that there is a patchy understanding amongst many government agencies of the characteristics and requirements of a significant Foot-and-Mouth Disease biosecurity response in which they would be required to support the Ministry for Primary Industries. [Finding 19, Page 46]

FMD Emergency Response Operations

- A foot-and-mouth outbreak emergency response has the unique feature of requiring immediate action to deliver critical taskings that have both a nationwide reach and impact. [Finding 3, Page 22]
- In a foot-and-mouth outbreak emergency response the trade related immediate actions required of MPI and MFAT are mature and well-rehearsed. [Finding 4, Page 22]
- The new CIMS3 protocol requires consequence analysis across the Social, Built, Economic and Natural environments in response and recovery, that will require rework to current FMD planning [Page 30]
- There was no evidence that most support agencies have in place readiness plans for a FMD Emergency Response, nor that they have assessed the probable impact on their domain of influence and the possible challenges of such an emergency to their business continuity capability. [Finding 12, Page 34]
- Strategic decisions to determine trade-offs in a FMD emergency response will, due to their potential impacts, be subject to intense scrutiny. Current understanding of these trade-offs is immature and decision support tools for NSS strategic decision makers may be inadequate and not 'fit for purpose'. [Finding 15, Page 44]

Exercise Scope

- The Exercise design and delivery appropriately reflected the evaluation framework developed for Exercise Whakatau Kōrero [Finding 5, Page 24]
- Exercise Whakatau Kōrero did not exercise the legal/policy framework for a Foot and Mouth Disease response. In particular the authorisation and use of emergency powers, beyond those available to a Chief Technical Officer under the Biosecurity Act 1993, were deemed out of scope [Finding 9, Page 31]
- Command, Control and Communication (C3), including Public Information Management, were not in scope or tested in Exercise Whakatau Kōrero, at either the strategic (NSS) or operational response levels but should be considered when planning future FMD exercising. [Finding 11, Page 33]

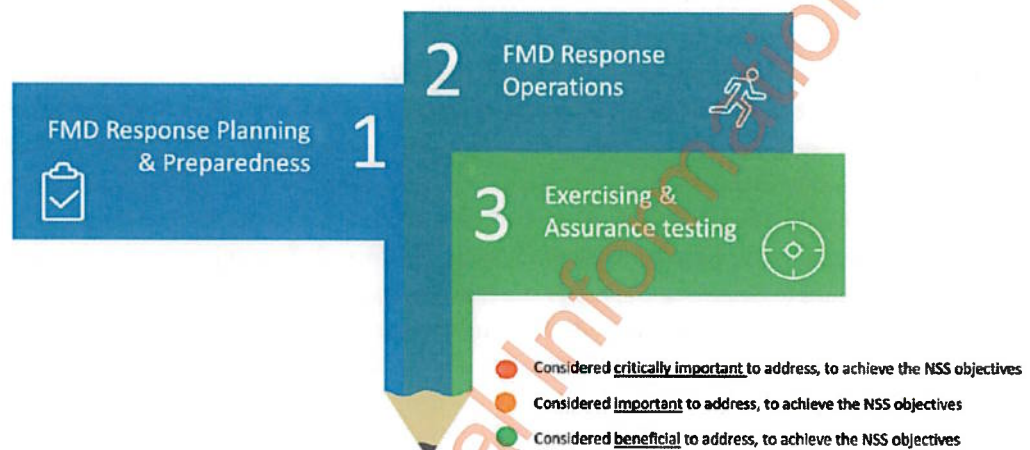
Agency Engagement & Exercise Communications

- The communications plan and delivery for Exercise Whakatau Kōrero was a key factor in gaining and sustaining agency engagement and representation across the series of eight workshops over three months. [Finding 1, Page 19]
- Throughout the workshop series, outputs were constantly provided to participating agencies that will benefit their own readiness planning and preparedness to support Ministry for Primary Industries. [Finding 2, Page 19]

National Security System

- Exercise participants demonstrated, through their discussions and comments in workshops, an understanding of the National Security System governance structures, operating procedures and associated protocols. [Finding 10, Page 32]
- Participants determined that current NSS arrangements would provide sufficient and appropriate technical advice to strategic decision makers without introducing a FMD specific multi-disciplinary Strategic Advisory Group. Rather, the focus for StAG should be in readiness to support MPI and their support agencies prepare for a FMD response and recovery operation. [Finding 14, Page 41]
- The National Security System structure and governance arrangements properly supported, could provide strategic direction and oversight to effectively manage a national FMD emergency. [Finding 17, Page 44]

Recommendations



Fourteen Recommendations have been offered, deemed necessary to achieve the National Security Objectives. They have been clustered into one of three groups. Each Recommendation is uniquely numbered, with page number reference for further detail within this report.

FMD Response Planning & Preparedness

- Biosecurity New Zealand's FMD Programme leverage the enhanced FMD awareness profile across Government agencies achieved through Exercise Whakatau Kōrero and offer 1-1 (agency-to-agency) support to further develop that agency's preparedness to contribute to a FMD emergency response. [Recommendation 2, Page 29]
- Ministry for Primary Industries convene an inter-agency Legal Advisory Working Party to consider access to, and use of, emergency powers for a Foot and Mouth Disease response. Once an agreed approach is determined this should then be tested in a separate exercise stream, with the output informing Foot and Mouth Disease planning. [Recommendation 4, Page 31]
- That a National Livestock Standstill initiation and implementation be planned and delivered as a separate work stream (not within the Biosecurity work stream) in a FMD response. [Recommendation 10, Page 38]
- That Trade and Economics be planned and delivered as separate work streams, in place of the current plan which has them combined, in a Foot and Mouth Disease emergency response. [Recommendation 11, Page 38]
- Ministry for Primary Industries develop a suite of decision-support tools to facilitate strategic decision making in a FMD response about competing objectives (e.g. national livestock standstill v economic impact/community wellbeing). [Recommendation 12, Page 43]

- Ministry for Primary Industries' FMD Programme review the Strategic Advisory Group (StAG) Terms of Reference and reposition the proposed technical support arrangement that is envisaged in response to operate in the readiness phase only. [Recommendation 13, Page 43]
- Ministry for Primary Industries' FMD Programme develop a FMD awareness package, including subject matter expert presentations and FMD reference material, and engage all support agencies to achieve and sustain an enhanced FMD awareness to remedy the variable understanding amongst some key government agencies. [Recommendation 14, Page 46]

FMD Response Operations

- That FMD planning (including Standard Operating Procedures) be updated to reflect the requirements of the Coordinated Incident Management System, third edition, to conduct consequence analysis across the Social, Built, Economic and Natural environments and to embed welfare and recovery considerations at all key decision points from the outset of a response. [Recommendation 3, Page 30]
- Ministry for Primary Industries identify the target operating model (and system gaps to ensure its achieved) that will enable the critical tasks and immediate actions to occur [Recommendation 9, Page 37]

Exercising & Assurance Testing

- That the National Exercise Programme's Planning & Coordination Team review Exercise Whakatau Kōrero's design approach with the use of a professional facilitator to achieve greater outcomes by creating an engaging 'participant experience' and consider integrating this into more exercises. [Recommendation 1, Page 20]
- Command, Control and Communication (C3) testing should be included when planning future FMD exercising, with tests conducted at both the strategic (National Security System) and operational response levels. [Recommendation 5, Page 33]
- Ministry for Primary Industries establish an annual Capability Maturity Model self-reporting regime to monitor all support agencies' preparedness for a biosecurity emergency including delivery of initial action critical tasks and assurance of business continuity in a response. [Recommendation 6, Page 35]
- Ministry for Primary Industries design and undertake due diligence assurance testing of selected support agencies' readiness plans and preparedness and capability statements. [Recommendation 7, Page 35]
- The Hazard Risk Board and the Ministry for Primary Industries consider undertaking an independent audit of All-of Government readiness to manage a Foot and Mouth Disease incursion and national security system emergency response. [Recommendation 8, Page 35]

Reporting

This Evaluation Report provides for MPI, Biosecurity NZ Readiness Group and the NEP:

- Technical comment on the conduct of the exercise and an assessment of the achievement of the objectives and key performance indicators (KPI) for the exercise;
- emergent themes in relation to a FMD response;
- key findings and recommendations derived from exercise outputs, participant feedback and the subjective observations of the evaluators; and
- observations and themes that the NEP may find useful for future exercises.

It forms a part of a collection of artefacts from the Exercise as shown below (this report being #2).

1. Executive Summary	2. Evaluator's Full Report	3. Exercise Output Report
<p>Description of the level of assurance that the Exercise demonstrated</p> <p>Audience</p> <ul style="list-style-type: none"> • MPI Executive (Incl DG) • Hazard Risk Board (HRB) • National Exercise Programme (NEP) <p>Contains</p> <ul style="list-style-type: none"> • Summary • Observations from Evaluator • Achievement of objectives • Key findings & themes • Recommendations <p>Author Lead Evaluator</p>	<p>Evaluation on the performance of the Exercise as a means to achieve greater national security</p> <p>Audience</p> <ul style="list-style-type: none"> • MPI Executive (incl. DG) • MPI Readiness Team • National Exercise Programme (NEP) <p>Contains</p> <ul style="list-style-type: none"> • Background & start point • Summary and observations from Evaluator • Objectives • Recommendations (for MPI, FMD, NEP) • Process / methodology • Achievement of KPIs • Emerging themes (incl from each workstream) • Recommendation for Appendix <p>Author Lead Evaluator</p>	<p>Consolidation of artefacts from eight Exercise workshops, providing the evidence for evaluation</p> <p>Audience</p> <ul style="list-style-type: none"> • Exercise participants (agency representatives) • MPI Readiness team (as reference for the future) <p>Contains</p> <ul style="list-style-type: none"> • Summary & next steps (from perspective of the Readiness Team) • Emerging themes (from Readiness Team debrief) • Process & methodology • Outputs per session (Incl. remaining questions to be clarified) • Appendix (incl. Evaluation Plan; KPIs; 2018 Plan) <p>Author MPI Readiness Team</p>

In **Part Two** of this report, Findings and Recommendations (mentioned above) are highlighted in the following format.

Finding
Insights that informed recommendations

Recommendation
Suggested priority for growing greater assurance

- Considered critically important to address, to achieve the NSS objectives
- Considered important to address, to achieve the NSS objectives
- Considered beneficial to address, to achieve the NSS objectives

Detailed Analysis

Background

New Zealand identifies national security risks on an “all-hazards” basis⁵. This means that all risks to national security, whether internal or external, natural or man-made, are included within the scope of our national security system, and agencies need to be prepared to respond and recover in a coordinated manner.

Animal and plant pests and diseases are identified as a hazard in the national security landscape with Foot and Mouth Disease (FMD) specifically described⁶. Characteristics of FMD that heighten the risk from an incursion are the disease’s highly contagious nature affecting all cloven-hoofed animals, its global trade impacts and consequent economic challenges, and international experience that points to significant and often extreme community and social disruption with long-term negative psychosocial impact.

New Zealand trade in dairy and red meat products internationally comprise a significant portion of trade receipts and underpin the national economy. International trade practices require certification of the exporting country’s FMD status in support of all ‘at-risk’ FMD products. Currently, New Zealand’s FMD-free status is a significant benefit in terms of trade access to global markets. Detection of a FMD incursion would immediately alter that status and universally and negatively impact New Zealand’s trading arrangements in those ‘at-risk’ products. Remediation of that status can only be achieved through satisfaction of the World Organisation For Animal Health (OIE) that response has achieved control and/or eradication of FMD.

The National Exercise Programme builds capability across government through a coordinated series of interagency readiness activities, measured against a set of national objectives. Capability is also built through the capture and sharing of lessons identified from previous events and exercises.

Within the National Security System (NSS) the Hazard Risk Board (HRB) – a NSS governance entity – oversees and directs the National Exercise Programme⁷ (NEP) to assure and test readiness and response arrangements across government. Exercise Whakatau Kōrero is a national security exercise within the NEP and was designed and delivered to test all-of-government readiness to respond to a FMD biosecurity incursion. It also focused on raising awareness of FMD across government agencies and garnering information to support future planning by Biosecurity NZ’s FMD Programme.



⁵ <https://www.civildefence.govt.nz/resources/national-hazardscape-report/>

⁶ <https://www.civildefence.govt.nz/resources/national-hazardscape-report/> at pp94

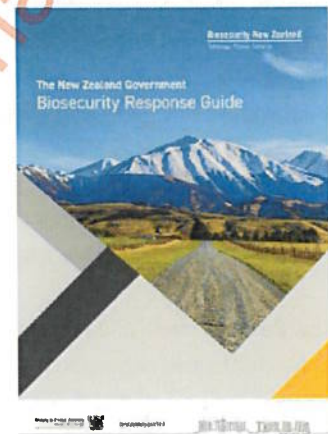
⁷ <https://dpmc.govt.nz/our-programmes/national-security-and-intelligence/national-exercise-programme>

Biosecurity Response Planning

In 2011 the then Ministry of Agriculture and Forestry (MAF) published a Whole-of-Government Biosecurity Response Guide (BRG11) which described and set out response accountabilities for a biosecurity threat or incursion in New Zealand. A project initiated in 2015 produced Biosecurity 2025 – Direction Statement for New Zealand’s biosecurity system.

Subsequently, BRG11 was replaced by The New Zealand Government Biosecurity Response Guide (2018) (BRG18). The BRG anticipates that a major biosecurity response will be initiated and delivered within the context of Government’s National Security System which is configured to provide an ‘all hazard’ response capability utilising the Coordinated Incident Management System^a (CIMS).

It is against this background that MPI sponsored to Officials’ Domestic and External Security Committee’s (ODESC) Hazard Risk Board (HRB) a biosecurity response scenario as a national security exercise within the National Exercise Programme (NEP) for 2019/20. MPI’s planning for a NEP level biosecurity exercise commenced in early 2019 and Exercise Whakatau Kōrero was held in Wellington as a series of facilitated and interactive workshops on various dates between 4 July and 26 September 2019.



In 2015 Exercise Rāwaho, a previous biosecurity scenario exercise based on the incursion of a horticultural pest (Brown Marmorated Stink Bug) was planned and delivered by MPI within the NEP. It provided agencies with an opportunity to practice their response to a NSS activation and contribute to enhancing New Zealand’s biosecurity readiness. The 2015 evaluation of Exercise Rāwaho brought forward recommendations for consideration by HRB in the areas of:

- Agency preparedness;
- Critical Information Management;
- Public Information Management; and the,
- National Exercise Programme.

Adoption and implementation of several of these recommendations by MPI including:

- Updating the BRG;
- Producing the New Zealand Government Foot and Mouth Disease Response and Recovery Plan (2018) that details the hazard assessment for FMD;
- Leading this exercise (Whakatau Kōrero); and,
- Ensuring all relevant response agencies participate in national biosecurity exercises

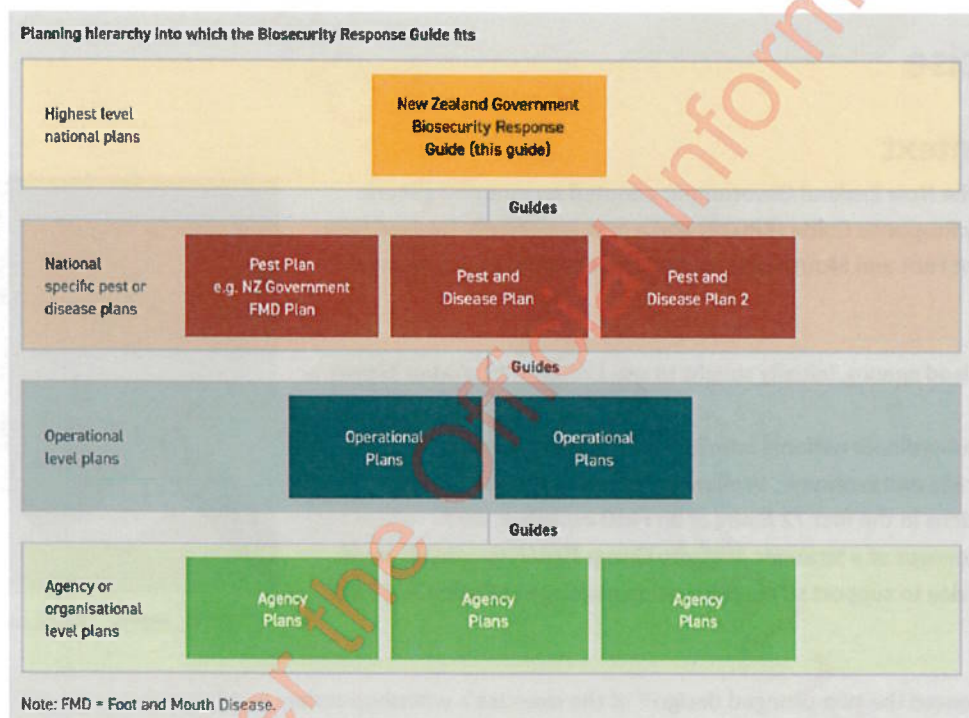
are notable improvements and indicates active uptake of previous lessons.

This 2019 evaluation considers the contemporary evidence available regarding agencies’ biosecurity awareness, planning, engagement and overall readiness to respond to a major biosecurity emergency (Foot and Mouth Disease).

^a <https://www.civildefence.govt.nz/assets/Uploads/publications/CIMS-2nd-edition.pdf> accessed at 1500hrs 10 October 2019

The responsible lead agency for a biosecurity event is the Ministry for Primary Industries (MPI), through Biosecurity New Zealand⁹ (BioSecNZ). Other government agencies will assist BioSecNZ by undertaking supporting roles or managing associated issues and risks within their own sphere of responsibility. Collectively this forms the all-of-government (AOG) response to a biosecurity incursion event.

BRG18 provides an overview for senior officials who may be involved in large or complex biosecurity responses, providing critical awareness and fits into a planning hierarchy for biosecurity. It also identifies 23 agencies that have roles in an all-of-government biosecurity response as well as Regional Councils and Territorial Authorities.



Since amendments were made in 2013 to the Biosecurity Act 1993, a joint approach to biosecurity responses involving partnership arrangements between industry and Government known as the 'Government Industry Agreement for Biosecurity Readiness and Response' (GIA) has operated. GIA is a partnership-based approach to managing pests and diseases that could damage New Zealand's primary industries, the economy and the environment. Broadly speaking, GIA creates a partnership between industry and government that aims to improve biosecurity outcomes.

There are 21 signatories to the GIA Deed including MPI (20 primary industry signatories representing 23 primary industries). The signatories – with MPI - that would be directly impacted by a FMD event are:

- Beef + Lamb New Zealand (B+LNZ)
- Dairy Companies Association of New Zealand (DCANZ)
- DairyNZ

⁹ Biosecurity New Zealand is a business unit within the Ministry for Primary Industries.

- Deer Industry New Zealand (DINZ)
- Meat Industry Association of New Zealand Incorporated (MIANZ)
- New Zealand Pork Industry Board (NZPIB)

The balance of the GIA industry partners represents the horticultural, forestry, equine and aquaculture industries in New Zealand. Several GIA industry partners were invited to participate in the major workshop of Exercise Whakatau Kōrero on 26 September 2019. NZPIB, DCANZ, B+LNZ, DNZ along with a representative of NZ Federated Farmers did participate.

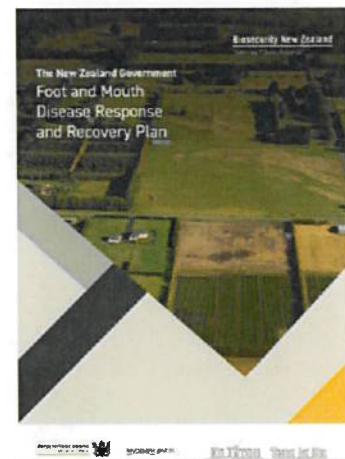
The Exercise

Exercise Context

In December 2018 the New Zealand Government adopted an updated generic National Biosecurity Response Guide (BRG18) and a new specifically focused New Zealand Government Foot and Mouth Disease Response and Recovery Plan (the FMD Plan).

MPI, as biosecurity lead agency, initially sought to use Exercise Whakatau Kōrero to:

- develop four subordinate national interagency work stream plans - Biosecurity, Trade and Economic, Welfare, and Recovery – to deliver immediate actions in the first 72 hours of an FMD outbreak; and
- promote the concept of a Strategic Advisory Group (StAG) to provide multi-disciplinary advice to support strategic decision making in relation to a FMD incursion.



This approach influenced the two-pronged design¹⁰ of the exercise's workshop series.

1. The immediate prescribed activities (that must happen regardless of the nature of the outbreaks);
2. Assess and make strategic-level decisions to match the response context.

Exercise Whakatau Kōrero did provide the opportunity for officials from agencies that would support MPI, as part of an AOG response to a FMD outbreak, to review and refine the four work streams' scope and critical tasks.

National Security System (NSS) after-action reviews¹¹ have highlighted the importance of sound decision making arrangements and familiarity with the complexity of decision making in large-scale crises. Exercise Whakatau Kōrero was designed to build on those reviews, previous responses and exercises to assist the further development of national emergency response capability. While in Exercise Whakatau Kōrero, FMD was the emergency subject, it was expected that the decision-making processes and coordination arrangements explored would also have wider application in the NSS.

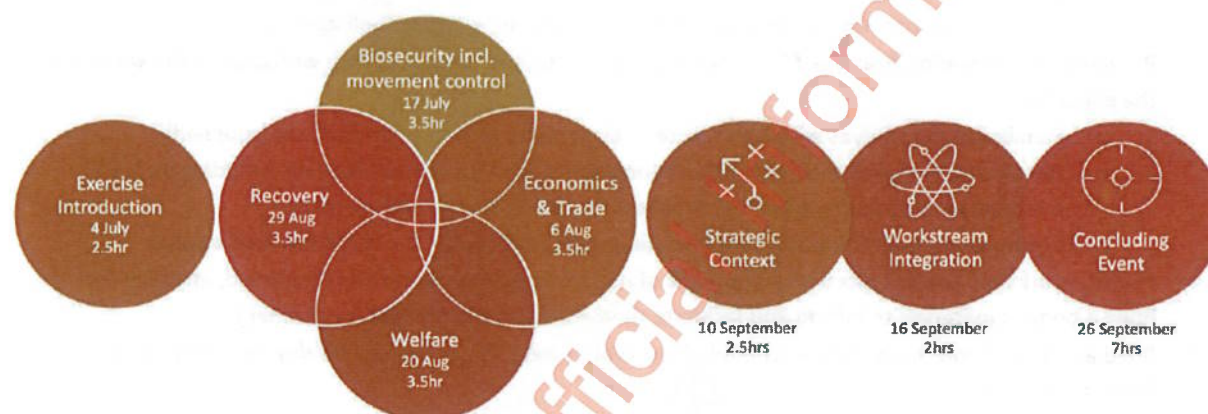
¹⁰ The Exercise design reflected the two-pronged approach set out in the 2018 Plan

¹¹ National Exercise Programme – Summary of Exercise Evaluations, National Exercise Programme report to Hazard Risk Board, November 2017

Exercise Format

Exercise Whakatau Kōrero was planned and delivered as an MPI-led all-of-government exercise that utilised a series of eight workshops over three months (July – September 2019) to enable the opportunity for information sharing and awareness-raising in respect of FMD; probable challenges in response to an incursion; and the widespread nature of the potential impact in New Zealand.

Figure 1: Exercise Whakatau Kōrero at a glance



The facilitated interactive workshops culminated in a full day discussion exercise intended to give all participants an opportunity to review and consider their agency's readiness to respond to a NSS FMD emergency activation and the contribution required to ensure an effective response.

All workshops in the series were preceded by the provision of relevant information to participants by the Exercise Planning Team (EPT). The workshops' format then provided introductory addresses by key subject matter experts (SME) on the principal topic of the day. This was then followed by interactive panel discussions and breakout sessions in which participants identified critical tasks in the immediate response to an incursion and considered agency responsibilities, accountability and support roles essential to completing those tasks. Opportunity was also provided in the second tranche of workshops (September 2019) to consider response options and develop strategic advice to NSS governance groups including identifying potential trade-offs and associated risks and benefits.

Within some artificial constraints associated with an exercise situation, the preparation by agencies and their participating representatives was modest.

Exercise Communications

The exercise communication plan was designed to:

- Extend invitations to those government agencies that had either contributed to the development of the FMD Plan in 2018 or that were identified in the Plan as having a role in an all-of-government biosecurity response
- Inform participating agency Chief Executives of:
 - the exercise, its objectives and planned activity and request their support in ensuring their agency was represented throughout the workshop series
 - outputs and emergent themes from the workshops as they were conducted
 - seek their sponsorship of appropriate readiness planning within their agency.
- Provide pre-information from the EPT to agency representatives attending each workshop in the week before the event to:
 - Familiarise themselves with MPI's suite of biosecurity response publications (supplied)
 - Research and review their agency's national emergency response planning, including business continuity and resource planning, to assess the sustainability of their plans
 - Continuously brief other relevant (including executive level) officials within their agency
- Provide workshop participants with summaries of output from each workshop conducted, enabling them to build a body of materials to inform and facilitate their subsequent intra-agency planning
- Build and sustain interest in future scheduled workshops including the major full day workshop on 26 September 2019
- Encourage executive level participation on 26 September 2019 to enable the strategic decision-making element of the exercise to be effectively tested
- Discover and assess agency readiness through:
 - Review of existing emergency response plans requested by EPT (both prior to Workshop One and at various times during the workshop series), and
 - Post-exercise intra-agency debrief reports to the exercise Lead Evaluator.

FINDINGS

1. The communications plan and delivery for Exercise Whakatau Kōrero was a key factor in gaining and sustaining agency engagement and representation across the series of eight workshops over three months.
2. Throughout the workshop series, outputs were constantly provided to participating agencies that will benefit their own readiness planning and preparedness to support Ministry for Primary Industries.

National Exercise Programme

Exercise Whakatau Kōrero was an intermediate (walk) 'all-of-Government' exercise conducted within the 2019 National Security System National Exercise Programme (NEP).

The NEP Planning & Coordination Team chaired by DPMC endorsed the exercise General Idea and multi-workshop series design. Direct support from Planning & Coordination Team members to engage agencies and encourage exercise participation at various points in the series was valuable. This also included support through the provision of keynote addresses on the NSS.

A close linkage between the Exercise Planning Team for Exercise Whakatau Kōrero and the National Exercise Programme's Planning & Coordination Team was a factor in gaining the exercise participation by agencies that was achieved.

The quality of facilitation and design of the delivery of the workshop series that created an interesting format for participants was a critical success factor in maintaining interest and attendance across the series. The Lead Facilitator's design approach provides a useful model for future NEP exercise design.

"The overall Exercise [was] effectively organised. In particular, the Facilitator contracted for the exercise played a highly effective and constructive role"

- Participant agency

RECOMMENDATION

1. That the National Exercise Programme's Planning & Coordination Team review Exercise Whakatau Kōrero's design approach with the use of a professional facilitator to achieve greater outcomes by creating an engaging 'participant experience' and consider integrating this into more exercises.

Exercise Outcomes

Workshop outcome statements were prepared by the EPT after each workshop and circulated to participants and their agencies. These artefacts form the basis of the Exercise Outputs Report¹² and those contents are a key deliverable from the workshop series to test current FMD planning and inform future planning by the FMD Programme of Biosecurity New Zealand.

Scope

The scope of Whakatau Kōrero was deliberately limited and not designed to test all aspects of a FMD emergency response. However, where general high-level questions or observations relating to those out-of-scope aspects arose these were recorded and are available for later consideration by the FMD Programme of Biosecurity NZ and the NEP.

Out of scope was:

- NSS activation;
- Legal/policy framework relating to the authorisation and use of emergency powers beyond those available to a Chief Technical Officer (CTO) under the Biosecurity Act 1993;
- Regional, local or other operational activity, except where relevant to inform workshop discussion;
- Capacity (resourcing) within agencies to undertake/complete/sustain critical tasks; and
- Public Information Management.

Scenario

The exercise scenario for the workshop series was restricted to the essential elements of a National Emergency Response necessary for setting a credible context for each session.

The narrative for the first set of workshops (2 – 5) focused on the first 72 hours after a FMD incursion has been confirmed and the NSS has been activated. The scenario set-out a baseline sequence of events and impacts for use during the course of the workshop series. As the series progressed the scenario was expanded and/or refocused and re-released to participants.

The scenario settings for the 'first prong' of workstream workshops deliberately emphasised the unique nature of a confirmed FMD incursion – that while there is a locus for the detected outbreak the area of operations is necessarily nation-wide immediately. Most emergencies' influence radiates out from the prime locus (natural disaster event; terrorist attack), however with FMD many of the immediate critical tasks require action across the country (e.g livestock standstill) and could require the mobilisation of most agencies in support of MPI. The reality of a FMD response is that the initial response is a mix of local and national critical tasks but the overall effect must be at a national level and that can only be recalibrated to a more regional and ultimately local responses as the outbreak epidemiology becomes definitive.

¹² The Whakatau Kōrero Outputs Report can be sourced from MPI's Readiness Team

FINDING

3. A foot-and-mouth outbreak emergency response has the unique feature of requiring immediate action to deliver critical taskings that have both a nationwide reach and impact.

The scenario was constructed for relevance and flexibility to accommodate the probable range, extent and context of any outbreak. These evolved and provided 'point in time' views over time as credible events emerged or progressed through the workshops.

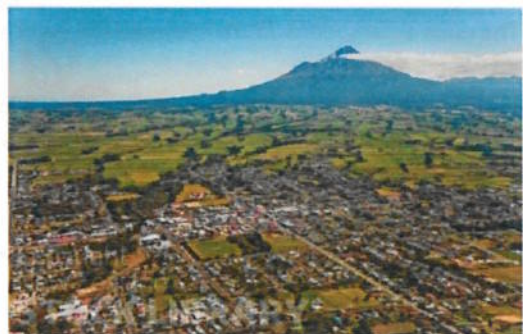
Those actions that New Zealand (and trading partners) would take in an FMD outbreak that are prescribed by the rules of international trade, known in advance, were used to anchor this domain of response activities. Similar in scale to the national implications, a FMD outbreak has global implications across all New Zealand's trading partners. MPI and MFAT have mature arrangements and processes in place to manage offshore trading and diplomatic relationships and the consequent impact on FMD susceptible goods in transit.

FINDING

4. In a foot-and-mouth outbreak emergency response the trade related immediate actions required of MPI and MFAT are mature and well-rehearsed.

To aid the workshop series, particularly the Discussion Exercise (DiscEx) on 26 September, a specific scenario¹³ of a FMD outbreak was provided. This was based in the Taranaki, with further outbreaks in the South Island. During the DiscEx there were six 'injects' that challenged the group to consider the implications of immediate actions, or strategic trade-offs that may be required.

The scenario effectively included the complexities and touchpoints that a farmer and farm owners have in their communities and likely flow-on effects throughout society.



¹³ Refer Appendix F for description of scenario, or the Exercise Planning team for video created.

Aim & Objectives

Aim

To further develop national-level arrangements needed to implement the New Zealand Government Foot and Mouth Disease Response and Recovery Plan.

Objectives and Key Performance Indicators (KPIs)

The four (4) objectives developed for Exercise Whakatau Kōrero were:

- Agencies **validate** the four national interagency work stream plans for response and recovery;
- the Strategic Advisory Group (StAG) concept and process is validated;
- Effective strategic interagency decision-making processes are explored; and
- Improvements in national-level biosecurity readiness are identified.

These exercise objectives and associated KPIs align with specific NEP objectives. For a comprehensive table, including NEP objectives, please see Appendix E.

Assumptions

The main assumptions which informed the exercise planning process were that at the commencement of Exercise Whakatau Kōrero:

- Agency representatives at exercise workshops were familiar with relevant processes and procedures of the National Security System activation in an emergency, and were able to participate effectively;
- Participants were familiar with their and their agency's roles, responsibilities and possible tasks in a major NSS emergency response;
- Participants were at a level of seniority such that they could appropriately inform other participants on their agency's policy positions on key matters and indicate how their agency may decide certain matters; and
- Participants could represent the perspective of their entire agency, and not that of their specific role or department within the agency.

Participants

Overall, participants from 24 agencies, including MPI, attended the exercise across the eight workshops that were delivered over a total of 28 hours. This represents 796 participant hours by officials in the exercise.

In total, 1200 hours active involvement in the exercise workshop series was achieved by representatives of 24 government agencies (including MPI), four industry bodies and the Australian Government Department of Agriculture. MPI SMEs also were in attendance at all eight workshops.

Of the GIA industry parties invited to participate in the full day 'Strategic Decisions' workshop of Exercise Whakatau Kōrero on 26 September 2019, NZPIB, DCANZ, B+LNZ, DNZ along with a representative of NZ Federated Farmers did participate.

Regional Councils and Territorial Authorities will also have key response roles in a FMD emergency. A Local Government NZ representative represented them at selected exercise workshops. Enhanced future engagement with this sector would be necessary.

Evaluation Methodology

The evaluation plan and methodology were developed in conjunction with MPI's Audit, Risk and Evaluation team in Compliance and Governance. There were three principal channels of data collection:

- Active scribes from the Evaluation team observing and recording both discussion in plenary and breakout sessions across the workshop series;
- Participants collectively considering key questions pertaining to the desired exercise outcomes during interactive breakout sessions with the product of those discussions collected, collated and analysed. This channel provided significant information on the Plan's response work streams for use by the FMD Programme Team for future readiness planning; and
- Participants also voluntarily provided feedback on each workshop that was collated and analysed to inform this report.

MPI's preparation for Exercise Whakatau Kōrero involved input from the Research & Evaluation Team from an early stage. This contributed to the development of an effective matrix of Key Performance Indicators (KPIs); associated measures and evaluation tools which has provided an extensive evidential dataset to inform the findings and conclusions in this report.

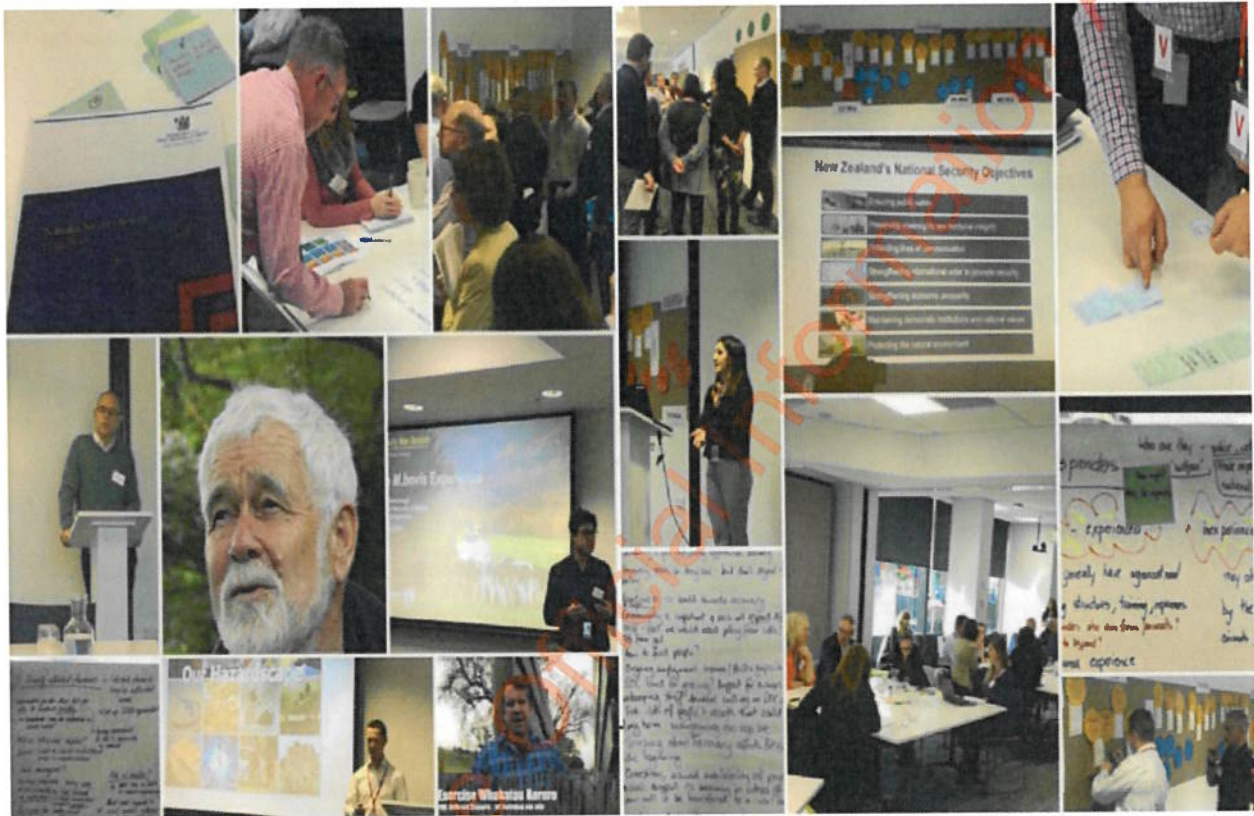
The evaluation team for Exercise Whakatau Kōrero is detailed at Appendix G.

The Lead Evaluator was privileged to also evaluate MPI's 2015 biosecurity exercise (Exercise Rāwaho) in the NEP and reported favourably on the evaluation framework developed for that event. Exercise Whakatau Kōrero continues MPI's previous approach in Exercise Rāwaho to plan for and support the collection of a wide range of evidential data to inform the exercise evaluation.

FINDING

5. The Exercise design and delivery appropriately reflected the evaluation framework developed for Exercise Whakatau Kōrero.

Photos taken from throughout the Exercise series.



Released under the

Assessment of Exercise Objectives

The assessments reported in this section draws on:

- the collated observations of participating agencies;
- individual participants feedback;
- product artefacts from the exercise activities (Workshops 1 – 6 & Workshop 8); and
- subjective observations of the evaluators on key aspects of the exercise.

The evidence relied upon for the assessments is held in the Exercise Whakatau Kōrero file by MPI's EPT and the FMD Programme on the Ministry's Piritahi database. The National Objectives; Exercise Objectives and Key Performance Indicators (KPI) are detailed in the Evaluation Plan at Appendices D & E. High level discussion of the findings that support the assessments is also set out below.

National Objectives

The exercise was delivered within the NSS NEP framework. MPI determined the National Objectives (NO) relevant to the exercise that required inclusion in the evaluation.

Four NOs (NO 1.0; 3.0; 4.0 & 8.0) and one national sub-objective (NO 2.4) were evaluated.

#	National Exercise Objective	Achievement
1.0	Lead a coordinated inter-agency response to major security incidents including overseas agencies where necessary	ACHIEVED
2.4	Support the interagency response to the significant incident or emerging threat in accordance with the lead agency's emergency plan, action plan, CIMS and legal/policy frameworks	PARTIALLY ACHIEVED
3.0	Enable high level all-of-government decision making through the National Security System	ACHIEVED
4.0	Integrate recovery planning and arrangements into the response	ACHIEVED
8.0	Integrate previous lessons identified from interagency activities to engender a culture of continuous improvement	PARTIALLY ACHIEVED

National Objective 1.0

“Lead a coordinated inter-agency response to major security incidents including overseas agencies where necessary”.

ACHIEVED

MPI’s FMD readiness planning identifies 24 government agencies along with Regional Councils and Territorial Local Authorities with a role in an all-of-government biosecurity response¹⁴. All 24 government agencies participated in the exercise workshops, with the majority of agencies attending all eight events. Some agencies who initially viewed some workshops as being irrelevant to them realised their participation was useful due to the indirect impacts a FMD outbreak would have on their agency.

“This has addressed the misconceptions by agencies on their responsibilities & capabilities”
— Exercise participant

At the commencement of the exercise, the EPT invited agencies to submit any existing emergency readiness plans they had to demonstrate readiness effort and preparedness by the support agencies. This invitation was repeated periodically throughout the exercise. No agency plans were tendered to the EPT. While the evaluation was not able to conduct any ‘deep dive’ in this area, this lack of response was a concern and is discussed later in this report.

During the Research and Design phase of the exercise the Lead Evaluator was apprised of a body of international research in relation to FMD outbreak readiness and management. The 2001 UK FMD emergency experience and subsequent reporting highlighted the wide impact of an outbreak on the social environment of a country and its communities¹⁵. These impacts are now being reported as inter-generational in nature.



Fires being used for animal disposal in the 2001 UK FMD outbreak. The estimated impact of the outbreak was £60.

In March 2019 the US Government Accountability Office (GOA) conducted an audit of the US Department of Agriculture’s (USDA) preparedness to manage a FMD outbreak. In 2013 the New Zealand Auditor-General conducted a review of MPI’s preparation for and readiness to respond to biosecurity incursions, including FMD. There are similar themes in the recommendations of both reports, including the need for significantly enhanced planning by both the lead and support agencies. Both reports identify improvements being made but point to ‘significant weaknesses’ that remain and the need for the development of remediation plans and for there to be active performance reporting of the remediation.

The Evaluation Report of the 2015 biosecurity ‘Exercise Rāwaho’ made similar recommendations to HRB regarding addressing identified weakness in preparedness, especially in relation to the readiness planning by support agencies. This included introducing a Capability Maturity Model of reporting and oversight for biosecurity preparedness.

Exercise Whakatau Kōrero has again disclosed that all the indicators are that support agency planning and preparedness is either generally either deficient or significantly sub-optimal. The threat that FMD poses to New Zealand’s national security is of such a magnitude this situation must be addressed. The US GOA has utilised an

¹⁴ The New Zealand Government Foot and Mouth Disease Response and Recovery Plan, Biosecurity NZ, MPI, Wellington, 2018 pp24-25

¹⁵ Case study on UK 2001 FMD outbreak in book “Who’s In Charge?: Leadership during Epidemics, Bioterror Attacks, and Other Public Health Crises”, Laura H. Kahn

independent audit of all agencies' FMD readiness plans and preparations to contribute to a FMD emergency response. This may be a useful model for application in New Zealand to bring about a step change in FMD preparations. It would enable the Director-General MPI and HRB to receive advice that met a critical 'due diligence' test for agency executives and provided assurance that a degree of trust and confidence could be placed in New Zealand's FMD preparations.

Within the constraints of a 'walk exercise' within the NEP, MPI were able to:

- Provide appropriate levels of leadership, information on the emergency scenario and subject matter expertise to enable a coordinated inter-agency response;
- Raise agency representatives' awareness of the estimated impacts (direct and indirect) of a FMD event in New Zealand;
- Have participants identify gaps and challenges for their agency to providing effective support to a FMD response and recovery operation; and
- Involve the Department of Agriculture & Water Resources, Australia with the Director, International and Strategic Policy, Office of the Australian Chief Veterinary Officer participating in the full day workshop. There was also an expression of interest from Irish Biosecurity officials in attending also but exercise timing precluded that happening.

National sub-Objective 2.4

"Support the interagency response to the significant incident or emerging threat in accordance with the lead agency's emergency plan, action plan, CIMS and legal/policy frameworks"

PARTIALLY ACHIEVED

Biosecurity New Zealand has been engaged with a range of advisory government agencies in the preparation of the 2018 FMD Plan. Planning for an FMD event is a 'work in progress' and it is anticipated by MPI that product from Exercise Whakatau Kōrero will inform MPI's future FMD readiness plans.

Originally, MPI considered there was merit in using the exercise to assist with the development of a detailed all-agencies' Initial Action Plan to provide structure and a mandate for agencies to act during the first 72 hours of a FMD response, similar to the format adopted for the Wellington Earthquake National Initial Response Plan (WENIRP)¹⁶. This approach influenced the design of the Biosecurity Workstream Workshop (Workshop 2). However, workshop activity effectively flagged that there was considerable further work required across all support agencies to properly scope their role(s), plan and prepare to deliver an effective response before the step to develop and implement a WENIRP-like plan for FMD could be taken.

¹⁶ A very similar model exists for the initial response phase of the National Counter Terrorism Plan (NCTP).

FINDINGS

6. The Ministry for Primary Industries plans to develop an All-of-Government (AOG) Foot and Mouth Disease Immediate Action Plan for the first 72 hours of an outbreak response, modelled on other National Security System documents - the Wellington Earthquake National Initial Response Plan and the National Counter Terrorism Handbook.
7. Exercise Whakatau Kōrero illustrated that the current status of support agencies' understanding of the national implications of a Foot and Mouth Disease incursion, their readiness planning, preparation and capabilities is not yet sufficiently mature to enable the development of an aligned all-of-government Foot and Mouth Disease Immediate Action Plan for the first 72 hours of an outbreak response.

RECOMMENDATION



2. Biosecurity New Zealand's FMD Programme leverage the enhanced FMD awareness profile across Government agencies achieved through Exercise Whakatau Kōrero and offer 1-1 (agency-to-agency) support to further develop that agency's preparedness to contribute to a FMD emergency response.

Coordinated Incident Management System (CIMS) – CIMS has been under active review and during the exercise series a revised CIMS Third Edition (CIMS3) was released as a consultation document¹⁷. CIMS3 has now been adopted as the government common operating model for emergency responses and transition to full implementation by 30 June 2020 is underway. A key aspect of the revised CIMS3 is that Welfare and Recovery considerations are to be factored into all Response and associated Strategic Decisions. To a degree the revelation of these amended priorities in CIMS3 was helpful and validated exercise discussions across the four work stream workshops (Workshops 2 – 5).

CIMS3 also promotes “*consequence analysis across the four environments in response and recovery*”. These environments are:

- Social environment
- Built environment
- Natural environment
- Economic environment.

A FMD emergency would have consequences in all the four environments. The Exercise amply demonstrated that likely impact. The biosecurity SMEs apprised participants of the experience in the United Kingdom in 2001 managing a significant FMD outbreak that also affirmed and underscored that a FMD incursion in New Zealand would definitely lead to significant consequences in all four environments.

Because at the time of the Exercise CIMS3 was still being consulted, the EPT exercised care in relation to these key proposed arrangements. Lessons from the current Mycoplasma Bovis (M. Bovis) eradication operation underway by Biosecurity NZ were frequently discussed by MPI SMEs and participants throughout the workshop series. Specifically,

¹⁷ CIMS3 has, at the time of this report, now been ratified & implemented to provide the generic structure and approach for the management of emergencies in New Zealand.

the welfare response and recovery arrangements that need to be considered from the start of, and throughout, a biosecurity response.

Embedding these elements in an emergency response from the outset was seen as challenging but was deemed by participants to be entirely appropriate in an all-of-government emergency response. This stance was supported for a FMD outbreak and was examined in the latter stages of the workshop series – ‘Workstream Integration’ (Workshop 6) and ‘Strategic Decision Making’ (Workshop 8).

It was noted that a FMD response has the unique features of:

- a ‘National Livestock Standstill’ that immediately requires a nationwide effort with commensurate impacts;
- an immediate withdrawal of export certification for at-risk primary produce that will require a global management effort;
- whereas other emergency responses usually have a finite locus that may expand over time to a wider regional area, a FMD response would actively involve all geographic regions of the country from the outset; and,
- the psycho-social impacts of a FMD incursion would have a similar national reach.

FINDING

8. The new CIMS3 protocol requires consequence analysis across the Social, Built, Economic and Natural environments in response and recovery that will require rework to current FMD planning.

RECOMMENDATION



3. That FMD planning (including Standard Operating Procedures) be updated to reflect the requirements of the Coordinated Incident Management System, third edition, to conduct consequence analysis across the Social, Built, Economic and Natural environments and to embed welfare and recovery considerations at all key decision points from the outset of a response.

Legal/policy framework - that would apply in a FMD response became a live discussion topic in Workshop 2 (Biosecurity Workstream). Both the Biosecurity Act 1993 and the Civil Defence & Emergency Management Act 2002 provide emergency powers that could be utilised in the event of a FMD outbreak. The EPT sought information and clarification from Legal Advisors on the operation of these powers and intended to test some aspects of them during the exercise.

It was noted that both relevant Acts were currently under review. In that circumstance, a decision was taken not to exercise the legal/policy framework. In particular, the authorisation and use of emergency powers beyond those available to a Chief Technical Officer (CTO) under the Biosecurity Act 1993 and other powers were deemed out of scope of the exercise.

It was also noted that a Declaration of a Biosecurity Emergency as provided for by the Biosecurity Act 1993 has never been sought nor granted, with CTO powers historically proving operationally sufficient. This is unlikely to be sustainable in a FMD incursion given the scope of the required response.

While the decision to not exercise the legal/policy framework was not prejudicial to the overall delivery of the exercise, some workshop outputs did reference emergency powers in the context of strategic decision advice and should be revisited in due course.

The resolution and reconciliation of access to, and use of, emergency powers for a FMD response should be considered by a joint Legal Advisory Working Party and then tested in a separate exercise stream to inform FMD planning. Particularly, given the nationwide immediate response required for FMD, whether a Declaration of a Biosecurity Emergency would be sufficient to empower and sustain the response. Or, whether the additional powers available through the CDEM Act to enable CDEM Groups and Controllers to support MPI's immediate response operations should operate. The latter approach with active CDEM Group involvement aligns with key elements of the Welfare and Recovery workstreams to act and engage locally to mobilise communities and recognise their variable features.

FINDING

9. Exercise Whakatau Kōrero did not exercise the legal/policy framework for a Foot and Mouth Disease response. In particular the authorisation and use of emergency powers, beyond those available to a Chief Technical Officer under the Biosecurity Act 1993, were deemed out of scope.

RECOMMENDATION



4. Ministry for Primary Industries convene an inter-agency Legal Advisory Working Party to consider access to, and use of, emergency powers for a Foot and Mouth Disease response. Once an agreed approach is determined this should then be tested in a separate exercise stream, with the output informing Foot and Mouth Disease planning.

National Objective 3.0

"Enable high level all-of-government decision making through the National Security System."

ACHIEVED

National Security System

The Exercise at several junctures examined the interface between:

- the Operational Response structures of MPI as lead agency and the range of other government agencies in support; and
- the Strategic Governance and Advisory structures and arrangements within the NSS.

Participants demonstrated, through their discussions and comments in workshops, an understanding of the NSS governance structures, operating procedures and associated protocols. This included the planned arrangements for

the NSS entities (Watchgroup & the Officials' Domestic and External Security Committee [ODESC]) to obtain subject matter expert advice through standing technical advisory groups. There was also extensive information sharing in presentations by DPMC and MCDEM SMEs across several workshops and between participants on these matters during the exercise's interactive sessions.

FINDING

10. Exercise participants demonstrated, through their discussions and comments in workshops, an understanding of the National Security System governance structures, operating procedures and associated protocols.

Strategic Advisory Group

Workshop 6 ('Workstream Integration') was designed to specifically have participants consider the StAG concept of an independent multi-disciplinary advisory body. The 2018 FMD Plan proposes that StAG would advise and assist the lead agency and AOG strategic decision makers – ODESC and Ministers – consider the available options across all FMD impact domains and the trade-off considerations at play.

The StAG concept was agreed 'in-principle' by participants but overwhelmingly the value of a StAG was seen as being in "peace time" to inform Readiness effort. This approach was seen as providing greater value than a StAG being convened during an emergency response and avoided the potential for duplication or conflict in advice channels to NSS governance groups; and the diversion of scarce resource to support a StAG in a response when there would be potentially extreme demands on MPI's resources.

This topic is discussed later in the section on the assessment of Exercise Objective 3.0.

Command, Control and Communication (C3)

C3 also arose throughout the workshops' interactive sessions. In relation to interactions and relationships between NSS and Response Agency officials the question of "Who's in Charge?" frequently emerged. The exercise deliberately did not have C3 in scope. However, through keynote addresses (particularly referencing the UK FMD outbreak in 2001) and general workshop discussions C3 is a critical element of any emergency response that future FMD exercise planning should consider testing. Public Information Management (PIM) should also be considered in any future FMD C3 exercising.

At an operational level, the use of RASCI (refer Appendix I) as a model to understand the various roles in a given task acted as an extremely useful tool to address the question of 'Who's in charge?'. This helped form the view that the response work streams need re-specification. There was clarity that the NSS arrangements coordinated by DPMC provide the C3 functionality at the strategic or AOG level, while the lead agency MPI has C3 responsibilities for the operational levels of a FMD emergency.

FINDING

11. Command, Control and Communication (C3), including Public Information Management, were not in scope or tested in Exercise Whakatau Kōrero, at either the strategic (NSS) or operational response levels but should be considered when planning future FMD exercising.

RECOMMENDATION

5. Command, Control and Communication (C3) testing should be included when planning future FMD exercising, with tests conducted at both the strategic (National Security System) and operational response levels.

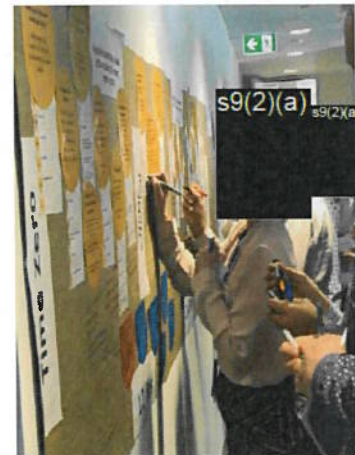
National Objective 4.0

"Integrate recovery planning and arrangements into the response"

ACHIEVED

Participating officials were aware of the CIMS3 consultation underway and that the new version promoted welfare and recovery considerations as an essential factor to be considered in all emergency response decision making from the outset. Exercise evaluation assumed that this NO will be reworked in future to include welfare alongside recovery and have proceeded on this basis.

The four workstream workshops illuminated the inherent tensions and synergies that can exist between workstream specific objectives (e.g. Biosecurity – Stamp out the disease) and other workstream objectives (Welfare - Minimise the adverse impacts upon the welfare of individuals, families and communities; Recovery - Restore and recommence international trade in primary produce as early as possible).



These tensions/synergies were explored through interactive discussion amongst participants in the Strategic Decision workshops (Workshop 6 – Workstream Integration; Workshop 8 – Strategic Decision Making).

The obvious tensions between workstreams were quickly identified by participants¹⁸ and a consensus was generally achieved that these matters would influence the advice officials would offer in support of strategic decisions. Participants reported their advice would identify available response options, the respective impacts of those courses of action, inherent risk, and potential opportunities. It was also acknowledged that many key decisions would require trade-offs and compromises to achieve the best outcome(s) overall for New Zealand.

¹⁸ The Whakatau Kōrero Outputs Report can be sourced from MPI's Readiness Team

National Objective 8.0

“Integrate previous lessons identified from interagency activities to engender a culture of continuous improvement”

PARTIALLY ACHIEVED

A NEP biosecurity exercise (Exercise Rāwaho) was planned and delivered by MPI in 2015. The evaluation of Exercise Rāwaho reported

“Given the significant national security threat that a major biosecurity incursion poses it was of concern that all support agencies do not yet fully understand the scope and nature of such an event and their potential role within it. In the all-of-Government debrief the Lead Facilitator established that very few officials outside MPI were aware of the BRG [Biosecurity Response Guide] and the specification of responsibilities and roles set out in that document.”

Exercise Whakatau Kōrero demonstrated again that most support agencies and their response officials only had a marginal and rudimentary understanding of the scope, nature and potential impact of a FMD emergency event.

A core group of agencies including Ministry of Foreign Affairs, Reserve Bank of New Zealand, The Treasury, New Zealand Police, New Zealand Defence Force demonstrated a sound level of understanding of their potential role in a FMD emergency.

It was disappointing that representatives of other agencies were not sufficiently aware of the threat a significant biosecurity incursion would pose for New Zealand at all levels of society. The Exercise disclosed that there are indicators that support agency planning and preparedness is either deficient or significantly sub-optimal. No biosecurity readiness plans were provided in response to EPT requests, nor did participants indicate that their agency had assessed the probable impact on the agency’s domain of influence and the possible challenges to their business continuity capability.

FINDING

12. There was no evidence that most support agencies have in place readiness plans for a FMD Emergency Response, nor that they have assessed the probable impact on their domain of influence and the possible challenges of such an emergency to their business continuity capability.

Participant feedback indicated that through the workshop series there was a significant uplift in individual understanding and awareness of biosecurity challenges and impacts including FMD in particular. Participants also identified that they were now able to identify gaps in their agency’s readiness and business planning.

The challenge now exists to create pathways for the enhanced awareness and gap analyses to influence agency NSS planning and preparedness to support a biosecurity emergency response. This challenge is jointly to NSS, NEP and MPI

“The info provided by Treasury and Reserve Bank to all agencies was very interesting, and sobering!”

- Exercise Participant

(Biosecurity NZ) to catalyse effort across all agencies to adopt and embed these lessons at agency, sector and AOG levels. Improvement is available in all agencies.

RECOMMENDATIONS

6. Ministry for Primary Industries establish an annual Capability Maturity Model self-reporting regime to monitor all support agencies' preparedness for a biosecurity emergency including delivery of initial action critical tasks and assurance of business continuity in a response.
7. The Ministry for Primary Industries design and undertake due diligence assurance testing of selected support agencies' readiness plans and preparedness and capability statements.
8. The Hazard Risk Board and the Ministry for Primary Industries consider undertaking an independent audit of All-of Government readiness to manage a Foot and Mouth Disease incursion and national security system emergency response.

Exercise Objectives

The exercise design reflected the two-pronged approach set out in the 2018 FMD Plan:

- A mixture of immediate activities to contain the disease in the first 72 hours of an FMD outbreak
- While the immediate activity proceeds, assessing the situation to inform strategic-level decisions and response and recovery planning

#	Exercise Objective	Achievement
1	Agencies validate the four national inter-agency workstream plans for response and recovery.	ACHIEVED
2	The Strategic Advisory Group (StAG) concept and process is validated.	PARTIALLY ACHIEVED
3	Effective strategic inter-agency decision making processes are explored.	ACHIEVED
4	Improvements in national-level biosecurity readiness are identified.	ACHIEVED

Exercise Objective 1.0

"Agencies validate the four national inter-agency workstream plans for response and recovery."

ACHIEVED

This Exercise Objective (EO) specifically references the immediate actions required in the response to a FMD incursion. The 2018 FMD Plan envisages four work streams – Biosecurity; Economics & Trade; Welfare; and Recovery. A separate workshop was conducted to examine and develop each work stream.

The respective workshop participants validated the four work streams that comprise 'initial response' in the 2018 Plan and this was affirmed during the later strategic level workshops. This consensus was achieved with the caveats discussed below that:

- Welfare and Recovery work streams still require additional work; and
- Biosecurity, and the Economics and Trade workstreams require re-specification.

"This is a very national/agency view of welfare. Would be interesting to repeat this workshop at a local level with participants like school principals, community group reps., church leaders, etc, around needs and solutions they could offer, linking in with a national response."

- Participant agency

The participant feedback was that while the 'Welfare' and 'Recovery' work streams were critical work streams, there remains further work to scope the immediate activity, roles and responsibilities across the response community. There is also additional work required to instil the requirement in CIMS3 (2019) for welfare and recovery to be embedded in all stages of an emergency response.

The examination of immediate activity in the workshops for Biosecurity (Workshop 2) and Economics & Trade (Workshop 3) both flagged up that a re-specification of these work streams is strongly indicated.

Biosecurity

In the Biosecurity work stream, the most significant immediate action is applying a National Livestock Standstill. This means all movement of farm stock that is susceptible to FMD must be stopped as quickly as possible. International experience suggests this offers the best chance to reduce the spread of the disease and make it easier to manage.

While the impacts of a National Livestock Standstill are significant at many levels it was also noted by participants, that there are also significant benefits on offer in the Recovery and Trade domains if a livestock standstill is implemented.

On this basis, the Biosecurity Workshop noted that there was sufficient complexity and urgency related to the livestock standstill, and the attention and scrutiny this would receive, that livestock movement management would be best delivered as a separate work stream. This would provide one of the many challenges on what would need to be a highly saleable operating model during the response efforts.

RECOMMENDATIONS

9. Ministry for Primary Industries identify the target operating model (and system gaps to ensure its achieved) that will enable the critical tasks and immediate actions to occur.
10. That a National Livestock Standstill initiation and implementation be planned and delivered as a separate work stream (not within the Biosecurity work stream) in a FMD response.

Economics & Trade

The Economics & Trade exercise session (Workshop 3) was characterised by the fact that the workshop design involved activity that was heavily weighted to sharing of critical information, rather than co-creating plans during the workshop.

In the Trade domain officials from MFaT's and MPI's trade groups shared the reality of the obligations that NZ would need to observe in the event of an FMD incursion. This situation would require a transparent declaration to the World Organisation for Animal Health (OIE) of the FMD outbreak and the subsequent withdrawal of all export licences in relation to FMD susceptible animal products.

In the economic domain, information was shared by officials from The Treasury on fiscal policy and The Reserve Bank of New Zealand (RBNZ) on monetary policy through their SME presentations to the workshop¹⁹.

The likely monetary and fiscal impacts of a FMD outbreak have been modelled by these agencies and these were presented to the workshop. RBNZ and The Treasury noted that the numbers used to estimate the financial impact from the NZIER economic impact report are considered out of date and that a new economic impact assessment should be conducted.

Table taken from Treasury presentation – 'Scenario Impact' – 6 August 2019

Cost type	Financial impact	Comment
Balance sheet revaluation	~\$9 billion	Driven by falls in the values of the government's New Zealand equity investments and property assets. Partially offsetting these downward revaluations are gains due to lower real interest rates and currency movements.
Direct fiscal costs	~\$6 billion	Includes discretionary support to affected farmers, eradication and compensation costs.
Indirect fiscal costs (in today's dollars)	~\$6 billion	Driven predominantly by higher benefits and welfare expenses as a result of job losses in affected sectors.
Total financial impact on the Crown	~\$22 billion	In today's dollars.

¹⁹ Table taken from Treasury presentation – 'Scenario Impact' – 6 August 2019.

RECOMMENDATION

11. That Trade and Economics be planned and delivered as separate work streams, in place of the current plan which has them combined, in a Foot and Mouth Disease emergency response.

KPI 1.1

Agencies are confident that the workstream plans are fit for purpose

Detailed AOG 'immediate action' workstream plans are still to be prepared. This was an original intent of MPI for Whakatau Kōrero to provide output product to enable the development of immediate action plans for the four workstreams in the 2018 Plan.

MPI demonstrated that from a technical biosecurity emergency response they have detailed knowledge of response requirements drawn from overseas (UK 2001) experience and in-house technical expertise. This provides a sound base for MPI's action plans as lead Agency.

There is no physical evidence available to the Evaluator that support agencies yet have appropriate plans in place to support MPI as Lead Agency in a FMD incursion.

KPI 1.2

Lead and support arrangements within a work stream are agreed by those involved

Several workshops (2-5; 8) considered and developed a list of critical tasks required to deliver an effective response to a FMD incursion in the first 72 hours of an operation. This was an iterative process using wall charts and a RASCI²⁰ methodology to assign roles and responsibilities for the critical tasks among agencies²¹.

Participants reported that throughout the workshop series their awareness of the scope, nature and requirements for a collaborative AOG response to a FMD event was enhanced. Discussion amongst participants strongly indicated that there was a general realisation that all 24 participating agencies had an active role to play in a FMD emergency biosecurity response.

Participants' feedback indicated that support agencies had preparedness gaps and/or would experience significant business continuity difficulty if confronted by a FMD biosecurity emergency.

"It's great having more understanding of FMD impacts, implications of impacts & the roles of other agencies"

– Exercise participant

²⁰ Refer Appendix I for RASCI framework

²¹ The Whakatau Kōrero Outputs Report can be sourced from MPI's Readiness Team

KPI 1.3**Agencies have clarity of their roles and responsibilities**

As noted in KPI 1.2 discussion, the exercise series significantly raised participant's awareness of the role(s) that their agency would be required to play in a FMD emergency biosecurity response. Participant feedback indicated that they were either previously unaware of the probable demands on their agency and expressed significant reservations on their current capability to meet those demands.

KPI 1.4**Agencies demonstrate a clear and shared understanding of how they would work together in a national biosecurity response**

The exercise series enabled an increased awareness of the breadth of agencies that would be required to contribute to a FMD emergency biosecurity response. The depth of effort that would be required was also highlighted. These dimensions and enhanced awareness illuminated the potential impacts and lack of existent readiness planning and preparedness among support agencies.

Across the workshops, participant discussion and contributions disclosed an enhanced understanding of the need for cooperative and collaborative action from all agencies identified in the 2018 FMD Plan. Throughout the series participants were urged to promote the development of immediate action plans for their agencies and review capability and business continuity plan (BCP) arrangements in the context of a FMD scenario.

This raised awareness offers the opportunity for MPI, as Lead Agency, to further foster strategic relationships with all support agencies to facilitate planning and preparation across government agencies to enable an effective response to a FMD biosecurity emergency.

The exercise disclosed a low base of knowledge among participating agencies of FMD and the likely impacts of a FMD biosecurity incursion.

MFAT, RBNZ and The Treasury demonstrated a good awareness of the impact and demands of a FMD event. Some operational agencies (NZ Police; NZDF; MSD) referenced generic planning and preparedness and confidence that this would meet immediate requirements. However, the nationwide scope of an immediate response and likely duration of a FMD eradication programme would potentially significantly test these agencies. Among most support agencies there was no evidence that planning and preparedness for a FMD emergency biosecurity response existed.



Exercise Objective 2.0

"The Strategic Advisory Group (StAG) concept and process is validated"

PARTIALLY ACHIEVED

The StAG was proposed in the 2018 FMD Plan as a "... multi-disciplinary Strategic-level Advisory Group ... established by BioSecurity New Zealand, [to] assess the outbreak and identify strategic options and recommendations for decision makers."

This new concept has been compared by some commentators in the NSS as a variant of the Technical Advisory Groups established or envisaged in the current NSS structure and arrangements. As such, there was a degree of concern about:

- the potential for duplication or conflict in advice channels to NSS governance groups in an emergency response; and
- how the StAG might be supported in a response given the already potentially extreme demands on MPI's resources in a FMD response.

KPI 2.1

There are clear Terms of Reference (TOR) for the StAG

The 2018 FMD Plan proposes that StAG would advise and assist the lead agency and AoG strategic decision makers – ODESC and Ministers – consider the available options across all FMD impact domains and the trade-off considerations at play. MPI have developed a draft TOR for the StAG to operate in an emergency biosecurity response. The TOR was not considered in detail during the exercise series – see previous discussion at NO3.0 and below at KPI 2.2

FINDING

13. The StAG concept requires further work to determine its key customer (who it reports to) and clear value proposition.

KPI 2.2

Agencies establish value proposition of the StAG.

The StAG concept was agreed 'in-principle' by participants in Workshop 6 (Workstream Integration) but overwhelmingly the value of a StAG was seen as being in "peace time" to inform Readiness effort. This approach was seen as providing greater value than a StAG being convened during an emergency response and avoided the potential for duplication or conflict in advice channels to NSS governance groups; and the diversion of scarce resource to support a StAG in a response when there would be potentially extreme demands on MPI's resources.

FINDING

14. Participants determined that current NSS arrangements would provide sufficient and appropriate technical advice to strategic decision makers without introducing a FMD specific multi-disciplinary Strategic Advisory Group. Rather, the focus for StAG should be in readiness to support MPI and their support agencies prepare for a FMD response and recovery operation.

KPI 2.3**StAG strengths and weaknesses are identified**

As discussed above and at KPI 2.2 while the StAG concept was endorsed as providing a vehicle to bring together a multi-disciplinary group of advisors to consider a range of 'wicked' problems and trade-offs between response options likely to confront strategic decision-makers during a FMD emergency.

The general consensus during the exercise was that StAG had a positive value proposition if convened in Readiness to support Lead and Support agency planning and preparedness. However, participants noted that existing NSS support structures and arrangements already provided for high-level technical advice to strategic decision makers (ODESC & Ministers) that may be potentially compromised or confused if a StAG advisory channel was overlaid in a FMD event.

The potential value of a StAG was seen in providing a multi-disciplinary forum to consider and advise on key 'wicked' problems likely to emerge in a FMD response. That StAG could be used to advise/assist not just MPI as Lead Agency but also to interact with and support a wider community of support agencies in their Readiness planning and preparations.

Exercise Objective 3.0

"Effective strategic interagency decision-making processes are explored"

ACHIEVED

The second phase of the exercise was focused on strategic decision making in the response. The linkages with the wider NSS structures were identified and validated in the workshops as the appropriate forums for strategic decisions and direction to the emergency biosecurity response.

Officials of DPMC and MCDEM provided information to participants (Workshops 4, 6, 7 & 8) on the structure and operation of the NSS in a national emergency.

The concluding event (Workshop 8) of the exercise series was conducted over a seven-hour session and its prime focus was on developing advice to NSS governance entities (WatchGroup; ODESC; Ministers) on options available and preferred approaches to effectively manage the outbreak. The scenarios developed for the interactive workshop sessions were designed to enable consideration of key response decisions and associated trade-offs between several potential 'courses of action' (COA).

Outputs from these workshops were collated and are available to MPI's FMD Programme to inform future planning.

KPI 3.1

The benefits of strategic decision-making to address the national interest are known

During the strategic decision focused sessions (Workshops 6 & 8) discussion among participants provided insight into the value of having and maintaining NSS governance capability to address the emergent strategic issues associated with a national emergency. The NSS was validated as the proper structure to coordinate and direct a national emergency including a major biosecurity event such as FMD.

The raised awareness among participants of the possible scope, nature and inherent challenges of an FMD outbreak that Exercise Whakatau Kōrero delivered, provided an ideal context for the evaluation of this KPI

KPI 3.2

Key factors that influence trade-offs between work stream objectives are identified

Participants in sessions 6 and 8 contributed to interactive breakout small group sessions. In session 6, the prime focus was how critical immediate action tasks identified for each of the four FMD workstreams²² could be prioritised and ordered. This included consideration of the impacts of each of these tasks and the identification of synergies, antagonistic factors and linkages back to the overall objectives of the emergency response.

The political dimension of possible trade-offs was generally noted and that decisions on these would necessarily occur at ODESC and Ministerial levels of the NSS. The use of a 'Strategic Assessment' template available to inform and assist this level of decisions was noted and discussed.

The exercise provided an effective vehicle for SMEs to brief participants on the governance arrangements inherent within the NSS and the facilitation and coordination responsibilities of DPMC in the AOG response to a national emergency.

Subsequent interactive discussions both in plenary session and small groups demonstrated that:

- there was an appreciation among participants of the likely trade-offs between work stream objectives that may be required in a FMD event;
- that trade off decisions would fall to NSS strategic decision makers; and
- preparing and submitting that advice to decision makers in the NSS structure in response would be challenging.

During the Research and design phase of the Exercise the Lead Evaluator was apprised of exercise outcomes in recent Australian FMD exercises, the ODYSSEUS series in 2014/15²³. A key finding in that exercise was:

²² As detailed in FMD Response and Recovery Plan, 2018

²³ <http://www.agriculture.gov.au/SiteCollectionDocuments/biosecurity/emergency/exercise-odysseus-report.pdf>

“Exercise Odysseus highlighted a lack of decision-support tools to facilitate decision making about a national livestock standstill. It was recognised that due to the impact an outbreak of FMD will have on the Australian economy and community in general, there will be significant scrutiny of the decisions made. Development of decision-support tools including checklists of evidence required, decision matrices, risk assessments and better understanding of all impacts of an FMD outbreak (both direct and indirect), particularly those of communities would assist decision makers to document the rationale for their decisions”.

Exercise Whakatau Kōrero enabled the provision to participants by SMEs of significant amounts of information and also illuminated the competing tensions between work stream objectives that were considered in the strategic workshops, it also highlighted that there were only rudimentary decision-support tools available – Strategic Estimate template used to inform NSS Watchgroup and ODESC.

However, given the complexity of competing objectives and associated demands on strategic decision makers in a FMD response as highlighted in the Odysseus finding above, suggest the current tools are not necessarily ‘fit for purpose’ in a highly complex decision environment. This requires attention.

Work to remedy this critical gap should occur as a collaboration between MPI, DPMC and other relevant agencies as part of AOG readiness.

FINDING

15. Strategic decisions to determine trade-offs in a FMD emergency response will, due to their potential impacts, will be subject to intense scrutiny. Current understanding of these trade-offs is immature and decision support tools for NSS strategic decision makers may be inadequate and not ‘fit for purpose’.

RECOMMENDATIONS

12. Ministry for Primary Industries develop a suite of decision-support tools to facilitate strategic decision making in a FMD response about competing objectives (e.g. national livestock standstill v economic impact/community wellbeing).
13. Ministry for Primary Industries’ FMD Programme review the Strategic Advisory Group (StAG) Terms of Reference and reposition the proposed technical support arrangement that is envisaged in response to operate in the readiness phase only.

Exercise Objective 4.0

Improvements in national-level biosecurity readiness are identified
ACHIEVED

All workshops in the Exercise series provided opportunity for improvements in preparedness and readiness for a national FMD biosecurity emergency. This was systematically designed into the individual workshops and participants were invited to challenge existent arrangements. Self-audit by each agency representative participating in the exercise was also invited through participant feedback forms.

KPI 4.1

“Agencies identify gaps, strengths and weaknesses in strategic national level biosecurity arrangements”

Participants were very candid in their commentary regarding primarily gaps and weaknesses at agency, sector and AOG levels in their knowledge of biosecurity response arrangements and in particular the specific far-reaching and challenging impacts of a FMD incursion and subsequent response.

MPI have produced a series of documents on the topic but they do not appear to have gained a penetration across the stakeholder community that would provide critical and essential support to MPI as Lead Agency.

There was a general acceptance among agency representatives that MPI as Lead Agency and FMD SME must do more to inform partner agencies of the threat and actively collaborate with them to eliminate currently weak or non-existent preparations to act as a key support agency.

“Obtaining and sharing information between agencies will be a key challenge for recovery.”

- Exercise participant

FINDINGS

16. The Ministry for Primary Industries approach to FMD planning has to date been significantly influenced by the scientific and technical base and culture of Biosecurity NZ. The Exercise illuminated the future need for planning to be more inclusive and acknowledge the existent tensions with New Zealand’s community, cultural and ethical expectations.
17. The National Security System structure and governance arrangements properly supported, could provide strategic direction and oversight to effectively manage a national FMD emergency.

KPI 4.2**Agencies improve their awareness of an all-of-government biosecurity response**

Several participants identified in their feedback that there was considerable value in having the opportunity that Exercise Whakatau Kōrero provides across the workshop series to meet, interact and collaborate with multi-agency peers to consider a FMD emergency. While core operational agencies demonstrated an awareness of their potential roles in a national emergency, most other agencies were candid in their identification of a lack of understanding of their agency's role and the consequent minimal planning and preparation to discharge that responsibility.

FINDING

18. The use of the RASCI framework was a practical method to highlight the type of involvement agencies would have in a FMD emergency response.

There is a clear and present need for on-going collaboration between MPI and all identified government agencies to continue developing the collective and cooperative planning and preparations in readiness for a major biosecurity emergency.

KPI 4.3**"Agency feedback and exercise evaluations informs whole of government biosecurity readiness status"**

The Exercise identified that the single most important factor in "whole of government biosecurity readiness" is clear specification of roles and responsibilities for all agencies. That must then prompt agency-specific planning to discharge their designated role and responsibility and to test and continually improve their plan and preparedness.

While MPI/Biosecurity NZ readiness to lead a FMD emergency was largely out of scope for this evaluation, there was sufficient evidence provided through documents, SME presentations and interaction by MPI officials with the wider response officials' group participating in this exercise, to suggest the MPI readiness status is appropriate for a lead agency.

However, MPI have identified that the first 72 hours of an emergency will require an immediate proactive and semi-autonomous response by all government agencies. During early planning for this Exercise it was MPI's and the Exercise Director's objective to develop the existing critical immediate task list and ascribe responsibility. Planning disclosed that additional preparatory work with agencies is needed before this step is feasible.

If the energy among agency representatives, that the Exercise has generated, can be tapped into through follow up by MPI's FMD Programme in 2020 then it is feasible that a AOG FMD Immediate Action Plan can be developed and promulgated to prompt further intra-agency readiness preparations in the first instance.

The FMD hazard is of such significance to New Zealand at all levels, within and without government, that a high level of awareness and assessment of likely impacts and mitigating responses is very strongly indicated. Exercise Whakatau Kōrero has only served to reinforce this view.

FINDING

19. The Exercise highlighted that there is a patchy understanding amongst many government agencies of the characteristics and requirements of a significant Foot-and-Mouth Disease biosecurity response in which they would be required to support the Ministry for Primary Industries.

The Exercise Whakatau Kōrero Outputs Report²⁴ prepared by the EPT provides an Aide Memoire for all agencies of those matters discovered, explored and determined during the workshop series. This includes a rudimentary RASCI assessment of identified critical tasks to be undertaken in the first 72 hours of a confirmed FMD incursion. The Outputs Report material, other national security emergency planning reference material and active support from the FMD Programme personnel collectively have the potential to make significant progress in the FMD national security planning and preparedness status.

RECOMMENDATION

14. Ministry for Primary Industries' FMD Programme develop a FMD awareness package, including subject matter expert presentations and FMD reference material, and engage all support agencies to achieve and sustain an enhanced FMD awareness to remedy the variable understanding amongst some key government agencies.

Next Steps

While it is acknowledged that 'Next Steps' are principally the domain of MPI/Biosecurity NZ the FMD Hazard is such a potential threat to New Zealand's national security that as Lead Evaluator of Exercise Whakatau Kōrero I have gained significant insights into the attendant challenges should a FMD incursion occur.

For this reason, I have taken the liberty of including my thoughts on potential key opportunities that exist in the wake of the Exercise. These can be characterised as:

1. Leverage Exercise outputs for FMD readiness

The innovative format of the Exercise workshops provided extensive opportunity for the participating collective of response officials to provide a wealth of product, commentary and feedback of the workshop topics and content.

"Given staff turnover it is important to think about how to keep this live as people change"

- Exercise participant

²⁴ Exercise Whakatau Kōrero – Outputs Report; Biosecurity New Zealand, MPI, Wellington 2019

While this has been considered in part to inform this report, its greater value lies in the information and data stored in MPI's Piritahi database. Future AOG collaboration and planning by the Biosecurity NZ FMD Programme could be potentially enhanced by further review and analysis of the workshop outputs.

2. Plan for and develop critical immediate action task lists across the six workstreams

The Exercise workshops have validated the four workstreams detailed in the 2018 FMD Response and Recovery Plan. Additionally, exercise participants suggest workstreams 1 (Biosecurity) and 2 (Economics & Trade) each be further divided into two separate although interdependent workstreams. This would provide six (6) major workstreams in a FMD Response. They are:

- Biosecurity
- Livestock Movements
- Economic
- Trade
- Welfare
- Recovery

The new recommended workstream structure can be informed by the critical task identification and associated RASCI analysis conducted by exercise participants for the first 72 hours of a FMD response.

3. Engage and negotiate with all partner response agencies their roles and responsibilities to deliver or support delivery of critical immediate action tasks

MPI as Lead Agency in a FMD emergency has through Exercise Whakatau Kōrero raised the AOG awareness of the disease, its likely impacts in New Zealand and energised response officials across 23 partner agencies. This presents an opportunity to build on this relationship base before the enthusiasm cools, to initiate and sustain planning and preparedness in each support agency to meet their portfolio obligations - either specifically in the event of a FMD incursion or any other national biosecurity emergency.

4. Support all partner response agencies to plan and prepare to discharge their AOG obligations for the delivery of critical immediate action tasks

With the candid observations by exercise participants of gaps and opportunities to better prepare, across government, for a FMD event, MPI should review its approach to developing FMD Response arrangements. However strong and effective MPI is at leading an operational and technical response to a FMD incursion, success in the delivery of an effective response and recovery more widely rests with the whole central AOG community, regional and local authorities and affected communities.

This will require a more inclusive and collaborative approach in developing future arrangements. MPI and its officials are the SMEs but the majority of critical response tasks fall to other agencies to deliver. Those agencies need to be intimately involved with MPI and other relevant response partners in the co-design of the response.

5. Explore and develop channels and processes to engage and collaborate with industry bodies, private sector operators and relevant opinion influencers

The potential impact of a FMD incursion could touch every sector, every entity and possibly every whanau in New Zealand. To avoid catastrophic outcomes and enhance the chances of delivering a successful and effective response to a FMD incursion an outreach programme beyond government agencies is strongly indicated. Existent national security readiness models (CDEM Earthquake & Tsunami; Protective Security) offer encouragement that with appropriate resourcing and strategic direction community penetration and socialisation of response modes, collective and individual contributions, can be achieved. FMD warrants this approach.

6. Develop a comprehensive exercising and testing regime of key elements and critical tasks within a FMD response

While MPI carries responsibility within the NEP for exercising and testing biosecurity emergency readiness, the exercising and testing regime has to be much more pervasive. As Lead Agency, MPI must have visibility of, and confidence in, the plans and response arrangements that all 23 response support government agencies have in place.

Continuing the theme of biosecurity threat in the exercise programme for the NSS is strongly indicated by the positive response of both government agency response officials and agricultural and allied industry representatives to Exercise Whakatau Kōrero.

The regular testing of biosecurity readiness, particularly FMD response arrangements, is a key factor in achieving the required state of preparation given the scale of potential impact a FMD incursion would have on New Zealand's wellbeing.

Once there is confidence plans and response arrangements are in place, the FMD hazard warrants a persistent and occasionally intrusive assurance process to provide 'due diligence' to MPI (Lead Agency); NSS (HRB & ODESC); and Ministers. Self-reporting by agencies of planning & preparedness can provide a baseline of information, but just as with other sensitive AOG models (PSR; Privacy; Digital Certification & Assurance) supporting audits and associated testing is essential. FMD preparedness would benefit significantly from such an approach.

Conclusion

Exercise Whakatau Kōrero's design utilised a different format than had previously been used for an intermediate level (Walk) exercise within the National Exercise Programme of the National Security System.

MPI has in recent years prepared several high-level documents setting out the framework for a national biosecurity response (ref BRG 2018) and specifically developing, with a core group of representatives of potential response partner agencies, an outline FMD Response & Recovery Plan. Despite this effort and relevant Ministerial engagement, the Exercise demonstrated that there had been minimal effect in raising awareness of the disease amongst the broad church of government agencies sufficient to encourage them to proactively plan and prepare for a FMD incursion.

MPI has noted the approach adopted in the WENIRP and National Counter Terrorism Handbook to develop and practise an immediate action response at an agency level. While the Lead Agency and national security structures and

processes are activated, there is an agreed and mandated set of SOPs to enable agencies to immediately begin their response activity knowing these efforts will be consistent with the desired aim and objectives of a coordinated response within the framework of the NSS.

Exercise Whakatau Kōrero was well planned and delivered by MPI. Exercise product provides a wealth of opportunity for MPI and other response support agencies to further develop a portfolio of plans and activities that will enhance the possibility of delivering a successful and effective outcome for New Zealand when a FMD incursion occurs.

Three National Exercise Objectives were Achieved

One National Objective and one sub-objective were Partially Achieved.

Three Exercise Whakatau Kōrero Objectives were Achieved

One Exercise Whakatau Kōrero Objective was Partially Achieved.

Whakatau Kōrero Lead Evaluator

ROB ROBINSON CNZM FIML MinstD

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Appendix A: Acronyms

AOG	All-of-Government
BCP	Business Continuity Plan
BRG	Biosecurity Response Guide
CDEM	Civil Defence & Emergency Management
CIMS	Coordinated Incident Management System
CMM	Capability Maturity Model
COA	Course of action
CT	Counter Terrorism
DDG	Deputy Director-General (of MPI)
DG	Director-General (of MPI)
DISCEX	Discussion Exercise
DOC	Department of Conservation
DPMC	Department of Prime Minister & Cabinet
EAG	Economic Advisory Group
EPA	Environmental Protection Agency
FMD	Foot and Mouth Disease
FMDV	Foot and Mouth Disease Virus
GIA	Government Industry Agreement for Biosecurity Readiness and Response
GLN	Government Legal Network
HRB	Hazard Response Board
KPI	Key Performance Indicator
LOE	Lines of Enquiry
MCDEM	Ministry of Civil Defence & Emergency Management (a Division of DPMC)
MFAT	Ministry of Foreign Affairs and Trade
MfE	Ministry for the Environment
MIMT	Major Incident Management Team (of MPI)
MPI	Ministry for Primary Industries
NEP	National Exercise Programme
NSS	National Security System
NZTE	New Zealand Trade and Enterprise
ODESC	Officials' Domestic and External Security Committee

OIE	World Organisation For Animal Health
PIM	Public Information Management
SE	Strategic Estimate
SITREP	Situation Report
SME	Subject Matter Expert
StAG	Strategic Advisory Group (for FMD)
TAG	Technical Advisory Group
TPK	Te Puni Kokiri (Ministry of Māori Development)

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Appendix B: Assessment of Exercise Objectives

#	National Exercise Programme Objective	Achievement
1.0	Lead a coordinated inter-agency response to major security incidents including overseas agencies where necessary	ACHIEVED
2.4	Support the interagency response to the significant incident or emerging threat in accordance with the lead agency's emergency plan, action plan, CIMS and legal/policy frameworks	PARTIALLY ACHIEVED
3.0	Enable high level all-of-government decision making through the National Security System	ACHIEVED
4.0	Integrate recovery planning and arrangements into the response	ACHIEVED
8.0	Integrate recovery planning and arrangements into the response	PARTIALLY ACHIEVED

#	Exercise Whakatau Kōrero Objective	Achievement
1	Agencies validate the four national inter-agency workstream plans for response and recovery.	ACHIEVED
2	The Strategic Advisory Group (StAG) concept and process is validated.	PARTIALLY ACHIEVED
3	Effective strategic inter-agency decision making processes are explored.	ACHIEVED
4	Improvements in national-level biosecurity readiness are identified.	ACHIEVED

Appendix C: References

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Civil Defence Act, 2002, Reprint as at 1 June 2018 [to be retrieved from: <http://www.legislation.govt.nz/act/public/2002/0033/51.0/DLM149789.html>]

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Exercise Whakatau Kōrero Exercise Instruction, Biosecurity New Zealand, Ministry for Primary Industries, Wellington, June 2019

Appendix D: Evaluation Plan

**Exercise Whakatau Kōrero
Evaluation Plan
July 2019**

Background

Exercise Whakatau Kōrero is designed to further develop immediate response national-level arrangements to implement the New Zealand Government Foot and Mouth Disease Response and Recovery Plan.

Exercise Whakatau Kōrero is a discussion-based series of workshops, presentations and tabletop activities, complemented by document-level collaboration with participating agencies (using “strawman” documents).

The exercise will reflect the two-pronged approach established in the FMD Plan:

- a mixture of immediate activities to contain the disease, (Immediate activities) (5x sessions July - August)
- Focus on interagency coordination arrangements, roles and responsibilities for the first 72 hours of a FMD outbreak, while assessing the situation, making strategic-level decisions and planning (Strategic assessment and decision making) (3x sessions in September)

Focus on strategic decision-making processes, in the context of FMD, includes the concept and potential operation of a Strategic Advisory Group (StAG).

The overall aim of Exercise Whakatau Kōrero is to enhance awareness of the scope, nature and challenges of FMD among government agencies and associated stakeholders and advance the level of inter-agency collaboration and cooperation needed for a successful FMD response.

Exercise Governance and Management

Lead Agency:	Ministry for Primary Industries (MPI)
Exercise Director:	Angela Brownie, Manager Readiness Group
Exercise Coordinator:	David Boag, Senior Project Manager (Exercises), MPI Blake Dearsley, FMD Programme Manager, MPI
Evaluation Plan:	Claudia Recker, Research & Evaluation, MPI
Lead Evaluator:	Rob Robinson, C&M Associates Limited
Lead Facilitator:	Jamie Fitzgerald, Inspiring Performance Limited

Links with other Exercise Whakatau Kōrero documentation

The evaluation plan should be read in the context of:

- National Exercise Programme – Aim, Objectives and Key Performance Indicators
- The New Zealand Government Foot and Mouth Disease Response and Recovery Plan
- The New Zealand Government Biosecurity Response Guide
- Exercise Whakatau Kōrero Advance Notice

- Exercise Whakatau Kōrero Exercise Instruction

Purpose of this Evaluation

The evaluation of Exercise Whakatau Kōrero will be conducted to:

- assess exercise conduct & delivery against the Exercise Objectives and National Exercise Programme (NEP) Objectives
- identify potential areas for improvement (including identification of any further work indicated)
- enable exercise reporting to Biosecurity NZ, the MPI Executive, the NEP and the Hazard Risk Board
- inform MPI's FMD planning to advance Biosecurity readiness.

Evaluation of the three main components of the exercise

Exercise Whakatau Kōrero consists of the following main components:

The Workstream validation phase (July- August) will focus on the immediate prescribed activities needed for at least the first 72 hours of an FMD outbreak. This phase will be managed by a combination of **document level collaboration** and a series of **interagency workshops** aimed at articulating and agreeing interagency collaboration:

Thursday, 4 July 2019:	Introduction to Exercise Whakatau Kōrero
Wednesday, 17 July 2019:	Biosecurity
Tuesday, 6 August 2019:	Economics & Trade
Tuesday, 20 August 2019:	Welfare
Thursday, 29 August 2019:	Recovery

The **Strategic-level assessment and decision-making phase** (September) includes drawing out factors related to the strategic questions referenced in the FMD plan. These factors will become a focus for the final workshops:

Tuesday, 10 September 2019:	Workstream Integration
Monday, 16 September 2019:	Strategic Context

The concluding '**Strategic Assessments and Decision Making**' event (Thursday, 26 September 2019) will draw on the themes and challenges from the preceding workshops and associated inter-agency collaboration observations. The evaluation of this main exercise will focus on strategic assessment and decision making in the context of a scenario-led FMD outbreak, alongside the testing, validation and practice of key elements of the identified inter-agency collaboration identified as essential to a successful biosecurity response.

Evaluation Methodology

Exercise Whakatau Kōrero is part of the interagency National Exercise Programme (NEP). The exercise objectives align with the NEP objectives and exercise KPIs were derived in the context of the NEP. Detailed key performance indicators (KPIs) and measures were developed for each component and approved by the Exercise Director. NEP objectives, exercise objectives, KPIs, measurements and the methodology for assessment are included in Appendix 1 of this document.

The following sections outline how each exercise component will be evaluated, using a number of tools.

Workstream validation phase – document level collaboration

This element of the evaluation will consider the pre-existing agency readiness to contribute to an FMD response, relying upon documentary evidence received from agencies.

Beyond the exercise, this will provide an evidential baseline to enable periodic checks on intra-agency and inter-agency FMD readiness.

Workstream validation phase – interagency workshops

Throughout this section of the exercise, participant data will be collected through feedback forms completed by participants at the end of each workshop. There is a core thread of questions in each feedback form to track responses over the exercise timeline. Additional questions are specific to each workshop theme. The evaluation will also be informed by:

- workshop deliverables as assessed by the MPI technical lead
- observations of the Lead Facilitator
- observations by the Lead Evaluator and members of the exercise MPI evaluation team during workshop breakout sessions in each workshop.

The evaluators will use a template with KPIs, measurements and rubrics (where appropriate) to note their observations in a structured format enabling collation and analysis.

Strategic-level assessment and decision-making phase

This part of the exercise will be evaluated using the same methodology as Phase 2.

'Hotwash'

At the conclusion of each workshop a short exercise team debrief is conducted to collect any immediate comments and observations that inform the evaluation and future workshop planning.

At the conclusion of the 'Strategic Assessments and Decision Making' event (Thursday, 26 September 2019) there will be a two-stage debrief:

- a) A short verbal 'hotwash' with participating agencies will occur at the end of the day.
- b) Each participating agency will then be asked to provide a written debrief/feedback to inform the evaluation.

Data Sources for Evaluation

The evaluation draws on a number of data sources. As outlined above, data for the evaluation of the various components of the exercise will be obtained through

- Observations by the Lead Evaluator and exercise evaluation team
- Observations by the Lead Facilitator
- Analysis by Lead Evaluator of document-level collaboration
- 'Hotwash' Debriefs
- Feedback form for participants

The questions asked in the feedback forms and the observations made are mapped through the KPIs and associated measurements to the Exercise and National Exercise Programme objectives (Appendix 1).

Feedback forms will also include questions relating to:

- Participants' most important learnings
- Quality of Exercise facilitation

The **feedback forms** will collect participants' names, and agencies, as well as the best way to contact them in case a follow-up is necessary based on the feedback provided.

There will be a short '**Hotwash**' **Debrief** at the end of each of the workshops for the exercise team that will be conducted by the Lead Facilitator. The facilitator, lead evaluator, other evaluators and the break-out session facilitators discuss their observations and learnings. Notes will be taken by the Project Evaluation Team to capture this commentary as an input to the evaluation.

Data Analysis and Evaluation Report

Quantitative and qualitative data from the various sources (outlined above) will be analysed and triangulated to provide a view of the level of achievement of the Exercise goals. Conflicting messages between data sources will be explored and determined by the Lead Evaluator.

While the Lead Evaluator will be ultimately responsible for the completion of the evaluation report, this will draw on the MPI Research & Evaluation team's provision of ongoing input and feedback during the analysis and writing process.

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Appendix E: Exercise Objectives, Key Performance Indicators & Measurements

Primary Aim: To develop national-level arrangements needed to implement the FMD Plan.

The following objectives are derived from the New Zealand Interagency National Exercise Programme (NEP).

NEP Objective	Exercise Objective	Key Performance Indicator	Measurement	How/Who
NO 1.0. Lead a coordinated inter-agency response to major security incidents including overseas agencies where necessary.	E.O. 1.0. Agencies validate the four national interagency work stream plans for response and recovery.	KPI 1.1. Agencies are confident that the workstream plans are fit for purpose	Understanding of whole of government arrangements increases Understanding of roles and responsibilities increases.	In participant feedback sheet: (Q3): "My understanding of whole of government arrangements according to the FMD plan is clear." (Q4): "My understanding of my agency's roles and responsibilities in a FMD response is clear." → Questions to be included in <u>all</u> feedback sheets and tracked over time.
NO 2.4 Support the interagency response to the significant incident or emerging threat in accordance with the lead agency's emergency plan, action plan, CIMS and legal/policy frameworks		KPI 1.2. Lead and support arrangements within a work stream are agreed by those involved	Proportion of tasks that have a clearly assigned responsible agency (RASCI assessment)	As part of workshop design and support to Agencies during the workshop series.
		KPI 1.3. Agencies have clarity of their roles and responsibilities	Proportion of tasks that have a clearly assigned responsible agency (RASCI assessment)	As part of workshop design and support to Agencies during the workshop series.
		KPI 1.4 Agencies demonstrate a clear and shared understanding of how they would work together in a national biosecurity response	Criteria to be assessed: Level of awareness of contextual arrangements (e.g. Biosecurity Plan & Guide) Level of awareness of the implications of these for agencies (e.g. that they have a part to play). Level of agency preparedness	Use of rubric as interpretative non-mandatory tool for observations In participant feedback sheet: (Q5): "The session contributed to improved interagency arrangements and readiness." → Question to be included in <u>all</u> feedback sheets and tracked over time.
NO 4.0 Integrate recovery planning and arrangements into the response.			This data will provide a 'maturity baseline'.	
NO 3.0 Enable high level all-of-government decision making through the	E.O 2.0 the Strategic Advisory Group (StAG) concept	KPI 2.1 There are clear Terms of Reference (TOR) for the StAG.	There is evidence that the questions (page 17) in the FMD plan are discussed and explored.	Workshop design and outputs Observational data

National Security System.

and process is validated.

Hotwashes

KPI 2.2 Agencies establish value proposition of the StAG
 Aspects of the StAG are discussed:
 How does the StAG provide value?
 Level of agreement that the StAG fills and advisory role
 How is the StAG managed and supported?
 Workshop design and outputs
 Observational data from breakout sessions and Lead Evaluator

KPI 2.3 StAG strengths and weaknesses are identified
 Aspects of the StAG are discussed:
 What are the sensitivities around the StAG?
 Workshop design and outputs
 Observational data from breakout sessions and Lead Evaluator

E.O 3.0 Effective strategic interagency decision making processes are explored
KPI 3.1 The benefits of strategic decision-making to address the national interest are known
 Benefits are verbalised in the workshops
 Workshop design and outputs
 Observational data from breakout sessions and Lead Evaluator

KPI 3.2 Key factors that influence trade-offs between workstream objectives are identified.
 Key factors are identified
 Lead Evaluator:
 Observational data
 Is reflected in StAG workshop design & perhaps Integration W/S design.

NO 8.0 Integrate previous lessons identified from interagency activities to engender a culture of continuous improvement
EO 4.0 Improvements in national-level biosecurity readiness are identified.
KPI 4.1 Agencies identify gaps, strengths and weaknesses in strategic national level biosecurity arrangements.
 Gaps, strengths and weaknesses are identified
 Lead Evaluator:
 Observational data
 Assessment of generic plans etc. that were sent to MPI prior to 17 July workshop
 Participants send generic civil defence/ national emergency plans/arrangements to MPI prior to 17 July workshop

KPI 4.2 Agencies improve their awareness of an all-of-government biosecurity response.
 Think about:
 What was the biggest learning?
 What is your agency going to do next? OR
 What are the top 3 priorities for your agency in this context?
 In participant feedback sheet (Q6): "The session contributed to increasing my awareness of an all-of-government biosecurity response."
 Open ended: "What is your biggest learning of today's session?"
 → to be included in all feedback sheets and tracked over time

KPI 4.3 Agency feedback and exercise evaluations informs whole of government biosecurity readiness status

What should be done next?
Capture key priority action points

Blake: short report
[Distribute to SLT & HRB]

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Appendix F: Whakatau Kōrero Scenario

Below is a transcription of the scenario used during Whakatau Kōrero. It is based upon the scenario outlined in the 2018 Foot and Mouth Response Plan.

"Spring has finally arrived in Taranaki, calving is almost finished and herds are mostly in the full flush of their milk production.

Mildred & George have worked their way through the dairy industry over the past 20 years as Dairy Assistants, Herd Manager and Sharemilkers and for the past 8 years farming their own property at Stratford in Taranaki.

They've worked hard both on-farm and also off-farm with Mildred continuing her nursing career, and George as an Artificial Insemination Technician and also doing some sileage and hay contracting in the district.

Throughout their farming career, George & Mildred have placed a priority on the quality and genetics of their cows. They currently milk a herd of 320 cows on the home farm and manage their replacement heifers and calves on a support block 22km away at Hawera.

A strong influence in their herd was the introduction of high-quality genetics when Mildred's parents sold their farm and gifted the core of their Jersey stud animals to Mildred as her share of their estate.

Mildred & George have continued to develop the stud and have gained a high reputation for their stock that is now represented in herds across the district and around NZ.

As studmasters, George & Mildred have always prioritised animal welfare.

This year's calving has gone well but grass growth has been slower than normal and available feed is starting to get short. George has arranged the purchase of feed supplements but that has yet to be delivered.

Two prize heifers calved 2 weeks ago, and they have been more difficult than usual to handle in the milking shed. In recent days they have really played up and Mildred thought they were not milking as well as they should be. Yesterday she called Taranaki Vet Services to have a look at these heifers.

This morning the Vet called in at milking time and examined the cows while milking finished. She came into the shed and looked quite upset.

She said she couldn't be sure, but both heifers had symptoms with lesions on their noses, mouths and feet. Worst case scenario was FMD, but as New Zealand has never had a confirmed FMD case she thought that was highly unlikely. But she was duty bound to report her concerns to MPI.

That turned the day upside-down!

MPI on receiving the Vet's call immediately required the property and all persons and stock to remain there until they can get a specialist Vet there to examine the animals. Until then no-one is to come onto the property.

Mildred's first thought was her kids that would be getting ready to catch the school bus. She headed off to stop them, only to see the bus pulling away from the front gate. Mildred hoped that they hadn't puddled through the mud at the gateway before they got on the bus.

George called the dairy factory to ask that they postpone the tanker's daily milk pick up this morning. He also contacted his stock carrier and cancelled the pick-up of some sheep from the runoff property. George was pleased that the weekly pick up of bobby calves had been yesterday.

The MPI Vet arrived and could not rule out FMD so has taken a lot of samples from the heifers and these are on their way to MPI's lab at Wallaceville.

Since then things have gone crazy.

So that's the situation. Here are some things that you should keep in mind as you continue throughout the exercise and link to the critical tasks you now need to navigate.

- Trade in FMD-susceptible animal products is suspended. Dairy alone now accounts for 35% of New Zealand's total commodity export value.
- The Prime Minister announces the situation across multiple media channels.
- A Declaration of a biosecurity emergency under the Biosecurity Act, and activation of civil defence (CDEM) groups in all regions.
- Pre-prepared plans are put into action by government, industry and others. Large numbers of personnel are mobilised.
- The infected property is locked down and its' animals quarantined. Surveillance teams (mostly vets) surge into the surrounding area looking for signs of FMD and isolating susceptible animals. Depopulation (killing) of these animals begins.
- A national livestock movement standstill is declared across all of New Zealand, prohibiting the movement of all live susceptible animals and other high-risk materials.

Transportation of livestock and processing of meat is suspended immediately; stranding trucks, containers and flights on route.

As a result of the livestock standstill, hundreds perhaps thousands of animals (mainly sheep and cattle) are likely to be held in situations unsuitable for their wellbeing (for example, in trucks and stockyards). Welfare becomes an issue for these animals within hours."

Appendix G: Research & Evaluation Team Details

The evaluation team for Exercise Whakatau Kōrero was:

- Lead Evaluator – Mr Rob Robinson, Principal Consultant, C&M Associates Limited, Wellington
- Facilitator & Assistant Evaluator – Mr Jamie Fitzgerald, CEO, Inspiring Performance Limited, Wellington

Evaluator Support:

- Ms Claudia Recker, Senior Advisor, MPI's Audit, Risk and Evaluation team in Compliance and Governance;
- Mr Glenn Rose, Advisor, Biosecurity Response, Readiness and Response Services;
- Ms Susannah Connolly, Advisor, Biosecurity Response, Readiness and Response Services;
- Ms Cassie Callard Advisor, Biosecurity Response, Readiness and Response Services;
- Ms Araminta Wilson, Advisor, Readiness and Response Services;
- Ms Daniela Foote, Communications Advisor.

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Appendix H: Keynote Addresses to Exercise Workshops

The following subject matter experts provided keynote addresses:

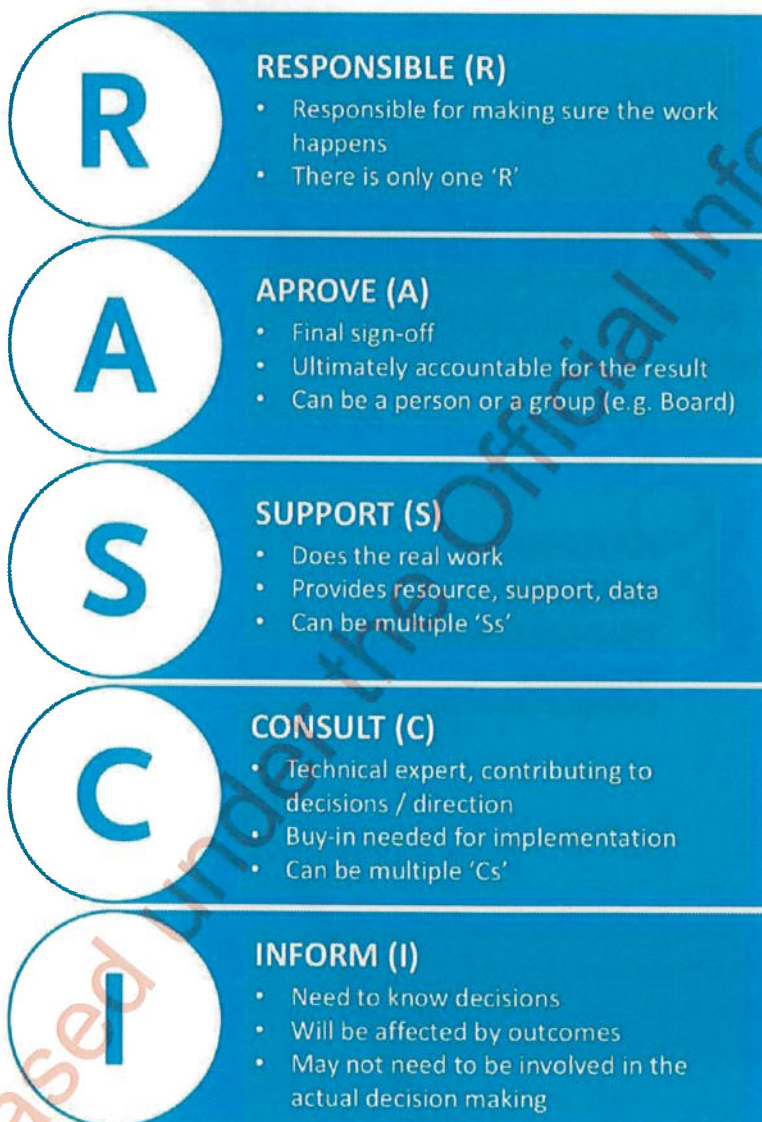
Marika Hughes	Principal Advisor Engagement & Coordination, National Security Systems Directorate Department of Prime Minister & Cabinet
Kim Beaumont	National Advisor National Security Systems Directorate Department of Prime Minister & Cabinet
Alex Hogg	Team Leader National Planning Ministry of Civil Defence & Emergency Management
Steve Cody	Team Leader Recovery Ministry of Civil Defence & Emergency Management
Rebecca Williams	Manager Policy Analysis Team Reserve Bank of New Zealand
Stuart Meiklejohn	Senior Emergency Management Advisor Ministry of Civil Defence & Emergency Management
Amelia Vinnell	Analyst, Transition & Regional Economic Development The Treasury
Blake Dearsley	Senior Readiness Analyst Ministry for Primary Industries
Andre van Halderen	Manager International Standards Organisations Ministry for Primary Industries
David Wansbrough	Manager Recovery & Welfare Ministry for Primary Industries
Bruce Burdon	Manager Market Access Liaison & Cooperation Ministry for Primary Industries

Neil McLeod	Principal Market Access Adviser Ministry for Primary Industries
Wayne Ricketts	Animal Welfare Ministry for Primary Industries
Brian Wilson	Manager Agriculture and Goods Unit, Trade and Negotiation Division Ministry of Foreign Affairs & Trade
Roger Smith	Deputy Director General, Biosecurity Ministry for Primary Industries
Cullum Peni-Wesche	[Powhiri; Poroporoaki] National Operations Coordinator Ministry for Primary Industries
David Marx	Principal Adviser Readiness Ministry for Primary Industries

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Appendix I: RASCI Model

Note: For more information on the model for gaining greater clarity on roles and responsibilities - <https://inspiringperformance.co.nz/get-stuff-done-with-rasci/>



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