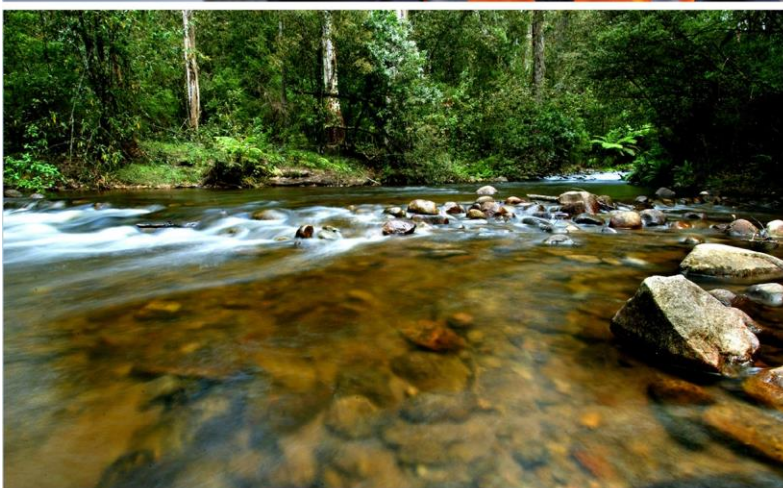
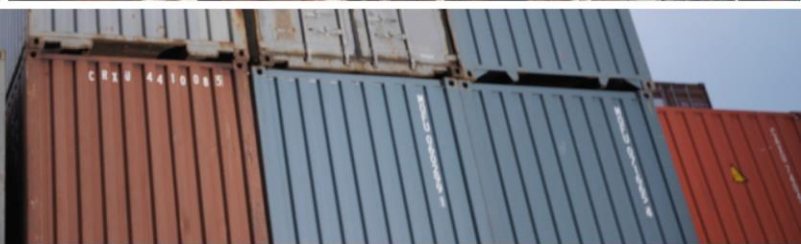


Is the Intergovernmental Agreement on Biosecurity effective and fit for the future?

Final report

Dr Michele Allan AO

Independent reviewer of the Intergovernmental Agreement on Biosecurity



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Acknowledgements

Dr Allan thanks the IGAB review support team at the Department of Agriculture, Fisheries and Forestry for their tireless work and assistance and all biosecurity stakeholders for their participation in this review.

Acknowledgement of Country

Dr Allan acknowledges the continuous connection of First Nations Traditional Owners and Custodians to the lands, seas and waters of Australia. Dr Allan recognises their care for and cultivation of Country. She pays respect to Elders past and present, and recognises their knowledge and contribution to the productivity, innovation and sustainability of Australia's agriculture, fisheries and forestry industries.

Letter of transmittal

Dear Agriculture Ministers

In accordance with the terms of reference endorsed by the National Biosecurity Committee (NBC) in May 2024, I am pleased to provide you with my final report of the review of the Intergovernmental Agreement on Biosecurity (IGAB). This report fulfils the requirement for the IGAB to be reviewed every 5 years, or sooner if required, and makes recommendations on improvements to the implementation and effectiveness of the IGAB.

Throughout this review I have had the opportunity to meet with members of the NBC and the Agriculture Ministers' Meeting (AMM), Director Generals or their delegates from the Commonwealth and each state and territory with responsibility for biosecurity, officials of the Commonwealth Department of Agriculture, Fisheries and Forestry (DAFF) as well as other individuals and entities who have provided me with valuable insights and contributions.

My discussion paper, which was released in August 2024, generated 30 submissions from members of the public, government agencies, First Nations groups, research and development corporations and interested industry groups. The contents of these submissions have greatly assisted me in preparing my final report.

I have heard unanimous agreement that the IGAB is essential in ensuring continued collaboration across the nation in managing Australia's biosecurity. The principles of the IGAB have been described as 'timeless' and 'relevant', yet the mechanisms for implementation are less well adhered to or adopted. There were also numerous suggestions to simplify the wording of the IGAB and present it in plain English.

Throughout this review I heard that the Australian biosecurity system is under continual strain with a reported increase in occurrence and complexity of outbreaks. Added to this are issues with the speed of decision-making, cost sharing, and funding concerns that need to be addressed. I heard that responses to outbreaks can be delayed which ultimately increases the costs to all parties. Further the current deed arrangements only focus on eradication, which is becoming increasingly more difficult to achieve while there is less focus in the system on prevention and preparedness. I have also heard there is a need for transparency on the deliberations of the NBC and further that the NBC could be more strategic in its deliberations.

Importantly, I have received commentary on the need for more First Nations involvement in biosecurity, greater transparency from government on biosecurity priorities and spending, and the wish for industry to have greater involvement in biosecurity decision-making.

The IGAB is a foundational element of Australia's biosecurity system and is the basis for continued collaboration and cooperation between all state and territory jurisdictions. Throughout this review I have remained open-minded to the views expressed to me yet have remained cautious of not making 'change for change's sake' to safeguard the biosecurity system from further instability.

I have proposed seven recommendations in my final report ranging from improved collaboration, to increased awareness of research and development projects and changes in governance. I have also

highlighted findings and observations that, while not substantial enough to warrant formal recommendations, were interesting enough to suggest further exploration is warranted by governments in the future.

I would like to thank the NBC for selecting me to undertake this important review. I also take this opportunity to express appreciation for the efforts of the many individuals, organisations and governments for the time and resources they have committed to speaking with me, making written submissions and sharing their experiences of the IGAB.

Finally, I extend my gratitude to the IGAB review support team within DAFF for their assistance and advice throughout this review. I am confident that the findings and recommendations contained within this report will ensure the IGAB remains effective and fit for the future.

Yours sincerely

A handwritten signature in black ink, appearing to read 'M. Allan', followed by a period.

Dr Michele Allan AO

22 January 2025

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Introduction

Australia's national biosecurity system aims to minimise the impact of pest and disease incursions on the nation's economy, environment and community, while protecting our international reputation for high-quality and safe produce.

Australia's highly regarded biosecurity system and related biosecurity status bring substantial benefits. Domestic consumers benefit from our world-class produce, our agricultural sector benefits from having preferential market access arrangements, and the broader community and the nation's tourism sector benefit from our pristine and unique natural environments.

Underpinning Australia's national biosecurity system is the Intergovernmental Agreement on Biosecurity (IGAB), which commenced in 2012. The IGAB is an agreement between the Commonwealth and state and territory governments to strengthen the national biosecurity system. It defines the roles and responsibilities of governments and outlines the priority areas for collaboration to minimise the impact of pests and diseases on Australia's economy, environment and community.

In late 2015, Australian agriculture ministers agreed to initiate a review of the national biosecurity system and the underpinning IGAB.

In July 2017, an independent panel presented its final report, *Priorities for Australia's biosecurity system: an independent review of the capacity of the national biosecurity system and its underpinning intergovernmental agreement* (the Craik report) (Craik et al. 2017), to the Agriculture Ministers' Forum. The report made 42 recommendations for strengthening Australia's national biosecurity system, including several recommendations to improve the IGAB. It is important to note that the Craik review had a broad remit to investigate the biosecurity system as well as the operation of the 2012 IGAB. This 2024 review is limited to evaluating the implementation and effectiveness of the 2019 IGAB.

Recommended improvements to the IGAB from the Craik report included the need for the IGAB to remain an agreement between the first ministers of Australian, state and territory governments, the overseeing of the implementation of the IGAB's core commitments, the need for data and knowledge sharing, new priority reform areas and various other amendments. An updated IGAB came into effect on 3 January 2019. It replaced the previous 2012 IGAB.

The current IGAB requires an independent review of the agreement be initiated within 5 years from commencement. This review was initiated in 2023 and formally commenced in May 2024. It is the second to take place since the inception of the original IGAB in 2012. Dr Michele Allan AO was selected to undertake this review by members of the National Biosecurity Committee (NBC), Agriculture Senior Officials Committee (AGSOC) and Agriculture Ministers' Meeting (AMM). A support team within DAFF was established to assist the independent reviewer during this process.

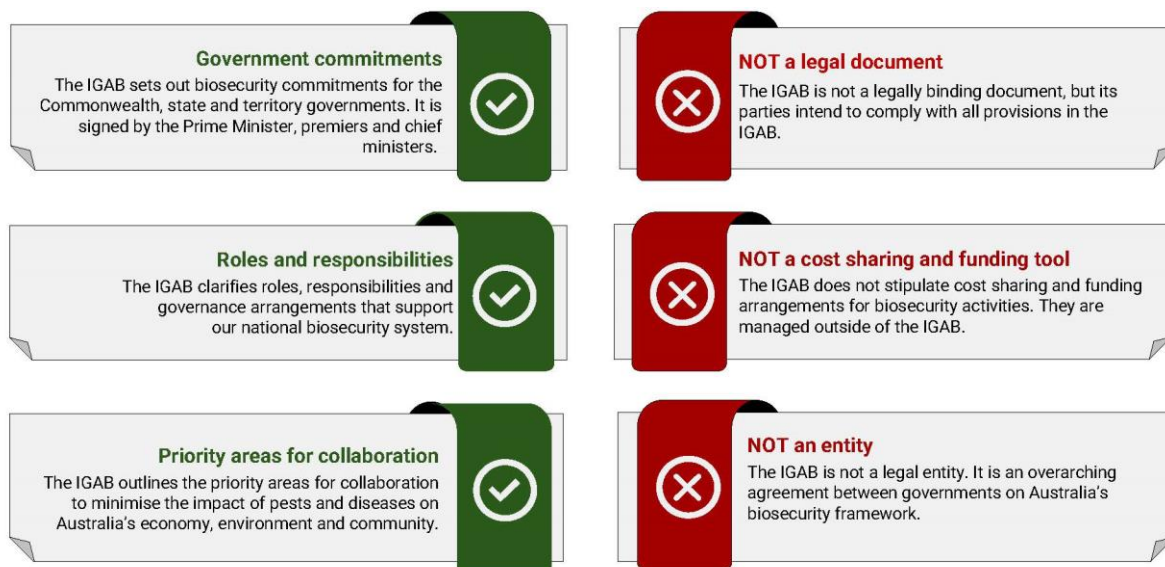
Intergovernmental Agreement on Biosecurity

The [IGAB](#) is an agreement between all Australian governments. Its objective is to strengthen Australia's biosecurity system through enhanced national collaboration among Australian

governments. This agreement also seeks to define the goal and objectives, and clarify the roles, responsibilities and governance arrangements, that guide the Commonwealth and states and territories in supporting the national biosecurity system (Figure 1).

The agreement is a major element of Australia's biosecurity architecture.

Figure 1 The IGAB at a glance



About the review

Clause 53 of the IGAB requires that the parties to the agreement initiate an independent review of its implementation and effectiveness every 5 years, or earlier if required.

Dr Allan was selected by the NBC based on her knowledge and expertise. As the appointed independent reviewer of the IGAB, Dr Allan has specifically considered the following 4 elements in accordance with the review's terms of reference ([Appendix A](#)):

- 1) The implementation and effectiveness of each section of the current agreement, in particular examining whether any clauses in the agreement inhibit any activity required to prevent, prepare for, detect and mitigate biosecurity risks, and respond to, manage and recover from biosecurity incidents should they occur, or whether any additional elements are required to prevent, prepare for, detect and mitigate biosecurity risks, and respond to, manage and recover from biosecurity incidents should they occur.
- 2) Existing cost sharing arrangements and the potential for implementation of new funding arrangements for cross-jurisdictional biosecurity activities.
- 3) The impacts of COVID-19 on the functioning of the IGAB and if any consequential amendments may be required.
- 4) Not duplicating efforts from previous and ongoing reviews and assessments of the biosecurity system noting that consideration and implementation of some of the recommendations from these may still be underway.

This review was strictly confined to the operation of the IGAB itself and did not extend to the greater biosecurity system. This review was an opportunity to look at whether the IGAB has been implemented properly, whether it is working effectively, and whether there are any amendments required to make it fit for the future.

The independent reviewer's final report is presented in 4 chapters to align with the elements of the scope of the review and contains the final views, findings and recommendations of the independent reviewer.

Interpreting the scope

The terms of reference ([Appendix A](#)) for this review required certain interpretations of the scope to ensure it was limited to the intention of the review, to not duplicate work being conducted elsewhere and to ensure the review was completed within the specified timeframe.

The independent reviewer met with members of the NBC on 18 July 2024 and specifically discussed the element of the scope that refers to existing cost sharing and funding arrangements for cross-jurisdictional biosecurity activities. The independent reviewer and the NBC agreed this was broad and as funding and cost sharing arrangements are not explicitly outlined in the IGAB, they should not form a part of this review. For these reasons, the independent reviewer and the NBC agreed that this element of the scope be refined to the IGAB funding and cost sharing frameworks, exploration of the current arrangements and potential recommendations for future work in this space.

The relevant clauses of the IGAB that relate to funding and cost sharing are:

- Clause 15: Biosecurity activities are undertaken according to a cost effective, science-based and risk-managed approach.
- Clause 16: Governments contribute to the cost of risk management measures in proportion to the public good accruing from them. Other system participants contribute in proportion to the risks created and/or benefits gained.
- Clause 33d: Each party commits to fulfilling, financially resourcing to maintain an effective biosecurity system and being accountable for their commitments under this agreement and emergency responses deeds and agreements.

In addition to the clarification of scope, this review was limited to the IGAB itself and therefore did not consider:

- the capacity and effectiveness of the national biosecurity system
- current or anticipated biosecurity risks to Australia
- any matters related to Commonwealth-only biosecurity funding, such as the Biosecurity Protection Levy
- the National Biosecurity Strategy (NBS) (except where linkages were drawn)
- matters to do with biosecurity legislation, either at the Commonwealth or state and territory level

- matters to do with Australia's international obligations relating to biosecurity.

However, the independent reviewer acknowledges that a number of these topics are relevant to submissions received from stakeholders and has therefore included discussion and findings about those topics, where appropriate.

Consultation and submissions

The IGAB and this review's terms of reference stipulate that input for the review be sought from a range of participants in the national biosecurity system, including governments, industries and community members. The independent reviewer consulted broadly to seek diverse feedback on the IGAB.

The consultation process commenced with the independent reviewer attending a meeting of the NBC on 18 July 2024, and meeting committee members individually, to seek their early views on the functioning of the IGAB and to determine any priority areas for investigation.

To foster stakeholder contributions to this review, a [discussion paper](#) (Allan 2024) was released on DAFF's Have Your Say portal on 15 August 2024 for a 5-week consultation period. The paper was presented in 4 sections to align with the 4 elements of the scope of the review. It contained the initial, provisional observations of the independent reviewer in terms of the implementation and effectiveness of the IGAB, cross-jurisdictional cost sharing and funding arrangements and impacts on the functioning of the IGAB resulting from the COVID-19 pandemic. The discussion paper also contained explanatory text and guiding questions for stakeholders; however, submissions were welcomed on any aspect of the IGAB, within the scope of the review.

This consultation was widely notified and generated 30 submissions ([Appendix B](#)) from both state and federal governments, industry groups, First Nations groups, environmental groups, researchers and members of the Australian community. Where permission was given to publish submissions, they were uploaded to the DAFF [Review of the Intergovernmental Agreement on Biosecurity](#) web page.

During and following the 5-week consultation period, the independent reviewer met with numerous individuals and organisations including NBC members, Director Generals of Biosecurity (or their representatives), the Australian Chief Plant Protection Officer, the Australian Chief Veterinary Officer, the Australian Chief Environmental Biosecurity Officer and many others. A full list of those entities consulted is located at [Appendix C](#).

Key themes from consultation on the discussion paper

Stakeholder feedback on the discussion paper centred around a number of key themes. The independent reviewer considered the feedback to be valuable and used it to influence the final set of recommendations and findings for this report.

The key themes raised by stakeholders were:

- the need for Australia's biosecurity system to adopt a One Health approach
- funding and/or cost sharing models for non-eradication biosecurity measures, such as prevention, preparedness, surveillance and containment need to be developed

- development of a prioritisation framework/matrix to assist decision makers to make impactful decisions on biosecurity responses
- the lack of clear processes and procedures for managing zoonotic and reverse-zoonotic diseases
- the need for more effective information and data sharing across jurisdictions
- the lack of consistency in approach across jurisdictions in managing biosecurity responses
- a lack of definitions for many of the terms used in the IGAB
- a level of confusion between the purpose of the IGAB and the emergency response needs.

The independent reviewer invested significant time and effort in assessing and analysing stakeholder views in finalising the report and has captured those views where appropriate.

Issues beyond the remit of this review

There were numerous issues raised in submissions that could not be pursued as formal recommendations of this review.

The discussion paper stipulated the narrow nature of this review and areas which were specifically precluded from the independent reviewer's consideration. Regardless, many viewpoints were offered and suggestions made that extend beyond the purpose and remit of the IGAB review. These suggestions included the view that precluding the independent reviewer from considering other reviews was not appropriate and impeded the ability for Australia to achieve a harmonised and effective biosecurity system.

Where possible, the independent reviewer requested officers within the DAFF with responsibility for those areas, to investigate those suggestions, separate to this review. The independent reviewer also shared numerous stakeholder comments with the NBC for consideration as part of the National Biosecurity Strategy forward work plan.

The following chapters contain the findings and recommendations of the independent reviewer, who takes full responsibility for the views expressed.

1 Implementation and effectiveness of the IGAB

As required by the scope of this review, the independent reviewer examined the implementation and effectiveness of each section of the current IGAB, taking into account if any clauses inhibited biosecurity activities and whether any additional elements are required. This included questions about whether the IGAB was functioning as intended, how the agreement promoted collaboration between Commonwealth and state and territory governments, the voluntary nature of the agreement and related governance arrangements.

For context, the 2019 IGAB contains 57 clauses (Table 1) that stretch across the agreement's goals and objectives, responsibilities of the signatories, governance, biosecurity emergency declaration powers, accountability and enforceability of the agreement. The independent reviewer's discussion paper requested stakeholders to reference specific clauses they considered may need amendment.

Table 1 The 57 clauses of the 2019 IGAB

Part	IGAB clauses	Description
Preliminaries	Clauses 1–7	Descriptive and explanatory clauses outlining the purpose of the agreement.
	Clause 8	Implementation and ongoing management of the agreement.
1 Foundations	Clauses 9–10	Definitions of biosecurity and explanation of Australia's international obligations.
	Clause 11	Benefits to Australia from its favourable biosecurity status.
	Clauses 12–15, 17–20	Key biosecurity principles, including shared responsibility, not zero risk, allocating resources according to risk, international obligations, and science-based and risk-based approach.
	Clause 16	Governments contribute to the cost of risk management measures in proportion to the public good accruing from them. Other system participants contribute in proportion to the risks created and/or benefits gained.
	Clause 21–22	Goals and objectives of the national biosecurity system including explanatory statements.
	Clause 23	Components of the system – a list of items, some of which come from international obligations (Appropriate Level of Protection (ALOP), lists of pests and diseases, and risk analysis system.
2 Formalities	Clauses 24–26	Parties to the agreement and whole of government arrangements.
	Clauses 27–28	Governance of the agreement including recognising that biosecurity is a shared responsibility, clarifying roles of parties and establishing nationally agreed approaches for working together.
	Clauses 29–30	Constitute and authorise the NBC to provide strategic management and oversight of the national biosecurity system including reporting lines.
3 Commitments of the parties	Clauses 31–32	Roles and responsibilities of all parties and relationships between governments and agriculture sector.
	Clause 33	Setting out core commitments (includes 'financially resourcing') of all parties including range of activities committed to.
	Clause 34	Responsibilities of the Commonwealth.
	Clause 35	Responsibilities of states and territories.

Part	IGAB clauses	Description
4 Operative provisions	Clauses 36–38	Interstate trade responsibilities such as regulating interstate trade and dispute resolution processes.
	Clause 39	Biosecurity emergency declaration powers—states and territories support the use of the Commonwealth’s power to make emergency declarations.
	Clauses 40–41	Partnerships including cooperative partnerships with biosecurity system participants.
	Clauses 42–43	Accountability and reporting for NBC and AGSOC.
	Clauses 44–45	Term of the agreement including when it commences, and that it replaces the previous agreement.
	Clauses 46–47	Variation of agreement.
	Clauses 48–52	Dispute resolution.
	Clauses 53–54	Review of the agreement within 5 years.
	Clauses 55–56	Withdrawal provision if parties may withdraw.
	Clause 57	Enforceability of the agreement; noting it is not a legal document.

To inform views on the implementation and effectiveness of the IGAB, the independent reviewer had preliminary discussions with representatives from state and territory governments and documented early observations and guiding questions in the discussion paper. The observations and views received from stakeholder submissions and meetings are discussed in the following sections.

1.1 Readability

An early observation of the independent reviewer, and a common theme in submissions, was the readability and complexity of the IGAB and the need for it to be more contemporary and less prescriptive. The independent reviewer heard that the IGAB is overly complex, difficult to understand and does not use plain English. One submission stated

‘a revised IGAB needs to consider the increasing complexity of the system, yet be simple and accessible, sustainable and achievable’. Another submission stated that ‘the key biosecurity principles described in the IGAB are timeless, however some of the mechanisms for implementation seem outdated.’

Initially, the independent reviewer had considered making a recommendation the IGAB be rewritten to suitably respond to the issues raised. The independent reviewer took into account the 2017 review, chaired by Dr Wendy Craik AM, which proposed numerous amendments to the IGAB, which significantly improved its readability.

The independent reviewer also considered the concept of developing an explanatory memorandum to the IGAB. An explanatory memorandum could clearly outline the IGAB’s intent and clarify any potential areas of ambiguity. The independent reviewer considered using an explanatory memorandum to clarify definitions, explain and unpack some of the clauses relating to funding and emergency deeds.

However, the independent reviewer has come to believe the IGAB is not overly complex and is remarkably clear once a level of familiarity with its content is achieved. It is now the independent

reviewer's opinion that an explanatory memorandum and a rewrite of the IGAB are not necessary and may result in confusion, too much flexibility and poorer outcomes.

Having said that, it would be remiss of the independent reviewer to not consider the amendments suggested throughout her consultation.

Submissions to the discussion paper contained suggested amendments such as:

- specific mention of 'wildlife', 'animal welfare' and 'environmental/agricultural terrorism'
- a clearer definition of 'shared responsibility'
- Australia's alignment with a One Health approach
- increased detail on funding and cost sharing arrangements
- increased investment towards prevention and preparedness projects.

The independent reviewer is grateful for the time taken to prepare proposed amendments and did see some value in these suggestions. However, as iterated previously, the independent reviewer is comfortable with the structure and wording of the IGAB and suggests that some of the proposed amendments be considered and/or adopted elsewhere (such as supporting documents, communications from the NBC and publicly available information), or that they are already adequately covered in related policies and agreements.

1.2 Reference to First Nations people

The independent reviewer noted there is currently no reference to First Nations people in the IGAB. A First Nations contribution to biosecurity will better reflect Australia's shared and full identity, modern diversity and the rich heritage of First Nations people.

Our First Nations people have an un-paralleled connection to Country. Their knowledge and understanding of the lands and waterways on which they live is deep-rooted, intricate, and extensive. Their unique regional familiarity to their country, from generational lived experiences is invaluable and rare. The independent reviewer believes that Australia's biosecurity system can be improved with First Nations people's ecological wisdoms and insights.

In addition, all Australian Governments are committed to sharing decision-making with Aboriginal and Torres Strait Islander people represented by their community-controlled peak organisations on Closing the Gap, the Coalition of Aboriginal and Torres Strait Islander Peak Organisations. This is an unprecedented shift in the way governments work, by encompassing shared decision-making on the design, implementation, monitoring and evaluation of policies and programs to improve life outcomes for Aboriginal and Torres Strait Islander people ([National Agreement on Closing the Gap July 2020](#)).

The objective of the IGAB has always been to strengthen our biosecurity system through enhanced national collaboration. The independent reviewer considers that the absence of a reference to First Nations people in the IGAB should be rectified and is therefore recommending their specific mention, particularly in clauses 6, 19, 40 and 41. This is the only amendment to the IGAB that the independent reviewer is recommending.

In addition, there should be formal mechanisms by which government engages with First Nations people to improve understanding of the ramifications of individual and collective biosecurity occurrences on the land.

These formal mechanisms will enhance a sense of collaboration and achieve a truly national biosecurity system.

Recommendation 1

That the Intergovernmental Agreement on Biosecurity be amended to specifically mention inclusion of First Nations peoples to foster a truly collaborative biosecurity system.

Recommendation 2

That the National Biosecurity Committee (NBC) considers ways to meaningfully collaborate with First Nations people's knowledge and wisdom through consultative mechanisms, such as including First Nations people in established advisory groups to the NBC for biosecurity surveillance, planning and responses.

1.3 Effectiveness

The independent reviewer has turned her mind to whether the IGAB is effective in strengthening Australia's biosecurity system through enhanced national collaboration among Australian governments.

The IGAB states that:

- Clause 1: the agreement forms a major element of Australia's biosecurity architecture and establishes for Australian governments (the Parties) their commitments to strengthen, participate in and lead the national biosecurity system by outlining the agreed goal, objectives, roles and responsibilities and governance arrangements.
- Clause 4: the Parties support a whole-of-government approach to biosecurity, covering areas including trade, agriculture, forestry, fisheries, tourism, the environment, social amenity and human health.

As such, the IGAB is paramount in setting out the biosecurity principles, procedures, roles, and responsibilities that apply to Commonwealth, state, and territory signatories.

The IGAB has created a framework for governments to coordinate and identify priority areas of reform and action to build a stronger and more effective national biosecurity system. The independent reviewer turned her mind to the notion of an 'effective biosecurity system', a regularly used statement that seems to go undefined. For the purposes of this review, the independent reviewer is defining an effective biosecurity system as 'a system that is agile, prepared and responsive in protecting Australia's biosecurity status, where all Australians commit to sharing responsibility, actively contributing, collaborating and sharing information'.

The IGAB was an important step for governments, recognising the value of improving and committing to intergovernmental relationships and building on the previous memorandum of understanding between Australian governments.

The 2019 IGAB contains 57 clauses that stretch across the agreement's goals and objectives, responsibilities of signatories, governance, biosecurity emergency declaration powers, accountability and enforcement of the agreement. The independent reviewer has now examined each of these clauses as well as each of the submissions received.

The independent reviewer heard almost unanimously, and agrees that, the IGAB is effective and is the foundation for maintaining collaboration across governments in managing Australia's biosecurity.

However, there are some areas that would benefit from further review which are explored in this chapter.

1.4 NBC governance and oversight

The IGAB constitutes and authorises the NBC to provide the strategic management and oversight of the national biosecurity system and intergovernmental relationships, and the operation of the IGAB.

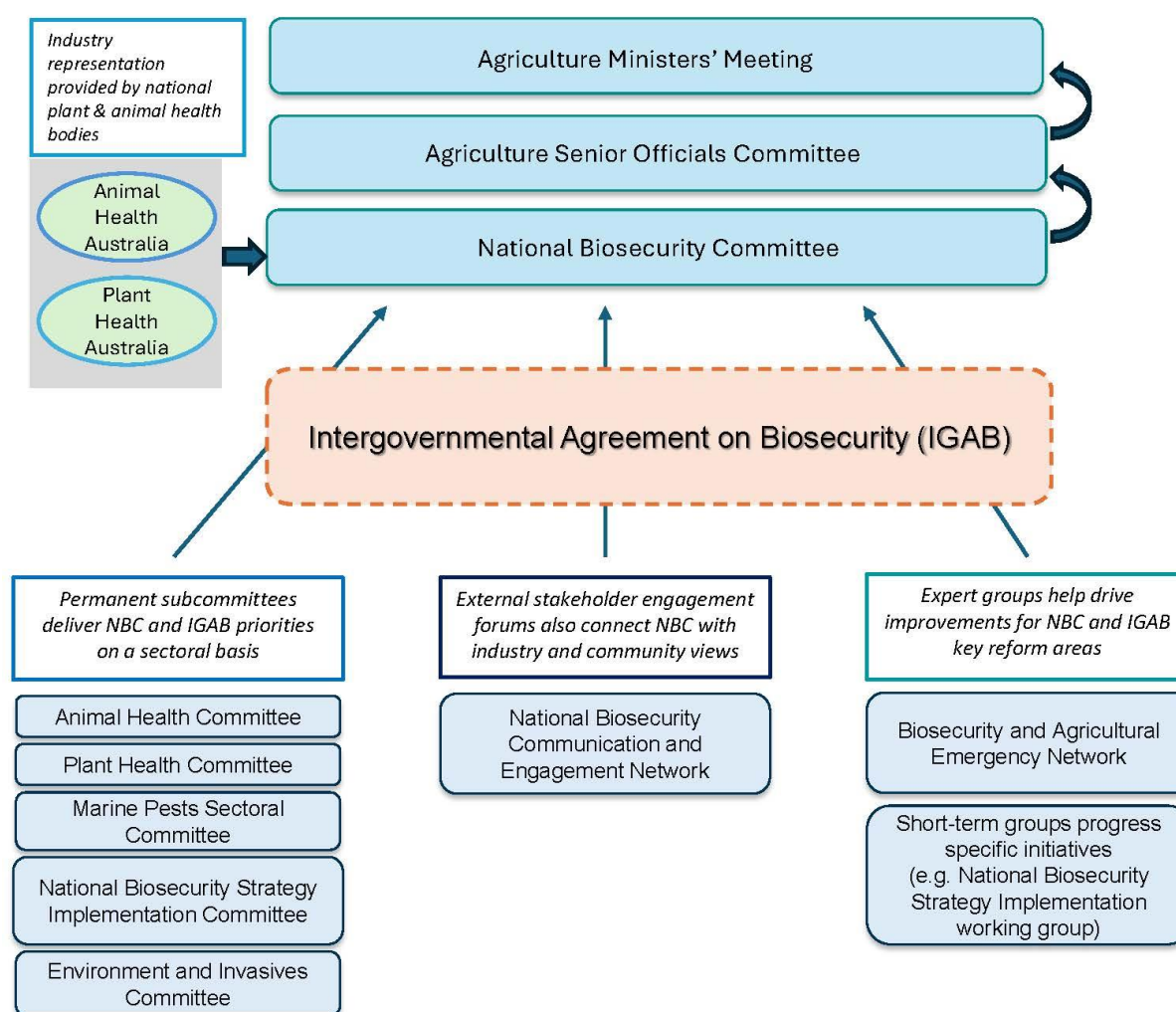
The NBC comprises senior officials from Australian, state and territory primary industry and/or environment agencies with responsibility for biosecurity, the New Zealand Ministry for Primary Industries (MPI), with observers from Animal Health Australia (AHA) and Plant Health Australia (PHA). Observers to the NBC are at the discretion of the committee, and not dictated in the IGAB.

The NBC reports to the AGSOC (comprised of department heads and CEOs of Commonwealth, state, territory and New Zealand agencies responsible for primary industries' policy issues), which in turn reports to the AMM (comprised of Agriculture Ministers of the Commonwealth, states and territories). The NBC is therefore a ministerial advisory committee established to provide strategic management and oversight of the national biosecurity system and intergovernmental relationships, and the operation of the IGAB.

The independent reviewer gave considerable thought to how the NBC, as enacted by the IGAB, supports the effectiveness and implementation of the IGAB.

The NBC is supported by 6 sectoral committees and a biosecurity and agricultural emergency network. These provide policy, technical and scientific advice on matters affecting their sector, covering all pests and disease risks to the terrestrial and aquatic (inland water and marine) animals and plants, and the environment. From time to time, the NBC forms expert groups and short-term task specific groups to provide advice and deliver key initiatives. The governance arrangements, underpinned by the IGAB, for these committees and subcommittees are illustrated at Figure 2.

Figure 2 The IGAB and governance arrangements for the national biosecurity system



Source: Updated from Craik et al. 2016

Commentary was received during the review that Research and Development Corporations (RDCs) should be included in or be part of expert groups that help drive improvements for the NBC and IGAB key reform areas. The independent reviewer understands that RDCs spend considerable levy and government matching funds on various aspects of the biosecurity system that may not be coming to the attention of decision makers. The independent reviewer is not recommending that RDCs should form part of the expert groups. However, the independent reviewer does suggest that consideration be given to formalising a role for RDCs' biosecurity project investments and that they be recognised in strategic planning processes within the NBC in the future.

Recommendation 3

That the National Biosecurity Committee consider the most appropriate mechanism for inclusion of Research and Development Corporations' biosecurity research projects, and their outcomes, in the committee's strategic view of the national biosecurity system.

The independent reviewer met with NBC members and its observers both individually and as a group on multiple occasions. The independent reviewer has heard of numerous changes in recent years to

incumbents of NBC positions, and a shift in the knowledge, experience and skillsets now held by the committee. Such significant changes are a risk to the effectiveness of a committee and consideration should be given to how stability of the committee can be improved.

Given the breadth of responsibility assigned to the NBC, the independent reviewer queries whether a biosecurity background is the main skillset required for a member of the NBC, or whether a mix of biosecurity, strategy and finance would make for a more rounded committee structure. It is not up to the independent reviewer to determine the makeup of the NBC. However, governments may wish to consider these skills in any future reviews of the NBC's structure and governance.

Submissions and consultation also revealed significant interest in a future review of the governance structure of the NBC to improve its output, effectiveness and transparency. This review could be an opportunity to look at the ability of the NBC to provide strategic oversight of Australia's biosecurity system, intergovernmental relationships, and the operation of the IGAB.

Broadly speaking, the NBC is responsible for managing a national, strategic approach to biosecurity threats relating to plant and animal pests and diseases, marine pests and aquatics, and the impact of these on agricultural production, the environment, community wellbeing and social amenity. It does this by focussing its efforts on those areas that have been identified as priority areas for the national biosecurity system, as well as managing ongoing or 'normal' commitments. The NBC also oversees implementation of Australia's [National Biosecurity Strategy](#) (NBS) (DAFF 2022a) which sets out priority areas established to achieve the vision and purpose for Australia's future biosecurity system (Figure 3).

Figure 3 The NBS and its 6 priority areas



The NBS comprises Australia's first national strategic plan and action plan for biosecurity, overseen by the NBC and agreed by all ministers. The actions encompass activities by all levels of government

and civil society. The NBC will oversee ongoing monitoring, evaluation and reporting of progress publicly, through the AMM. The independent reviewer notes synergies between a number of findings in this report and activities documented in the National Biosecurity Strategy Action Plan (Commonwealth of Australia 2024a). These have been referenced in multiple areas of this report.

In reviewing the IGAB, the independent reviewer identified numerous clauses relevant to the NBC's governance structure including:

Clause 29 states

'this Agreement constitutes and authorises the National Biosecurity Committee (the Committee) to provide the strategic management and oversight of the national biosecurity system and intergovernmental relationships, and the operation of this Agreement. Each party will be represented by a Lead Agency senior official, who must present a whole-of-government perspective for that Party'.

This clause provides the NBC with the impetus to function in a strategic manner, have oversight of the system, relationships and the IGAB itself. The NBC could consider using the IGAB to facilitate strategic discussion on the ability of the NBC to meet their obligations in the IGAB and thereby recalibrate NBC priorities.

Clause 30 states

'The committee will report to the Agriculture Senior Officials Committee (AGSOC) which in turn will report to the Agriculture Ministers' Forum (AGMIN), the meeting of Responsible Ministers'. [AGMIN is the former acronym of AMM – the Agriculture Ministers' Meeting].

This clause requires the NBC to report to ministers and senior officials which provides transparency and keeps biosecurity front of mind.

Clause 42 states

'The Committee will report annually to Responsible Ministers on its work program, implementation of the Agreement, performance indicators and benchmarks [once developed and agreed by Responsible Ministers] and identify options for remedying areas where unsatisfactory progress is identified. The report will be made public following Responsible Ministers' consideration'.

The NBC undertakes various reporting activities which are fed through AGSOC and AMM forums, and the independent reviewer was informed that new reporting against the NBS is also planned. However, it is not apparent to the independent reviewer that the reporting requirements of Clause 42 of the IGAB, such as performance indicators, benchmarking and measuring of progress is being undertaken as required by this clause.

Clause 43 states

'The AGSOC will establish and oversee an independent Evaluation Program to assess and report on implementation of each Party's commitments under this Agreement,

with all Parties assessed within a five (5) year period. The AGSOC will provide Evaluation Reports to Responsible Ministers and make public a summary of each Evaluation Report following Responsible Ministers' consideration'.

This Clause should not be confused with Clause 53 which requires a 5 yearly review of the IGAB. Clause 43 is much more specific in its requirement for evaluation and reporting of implementation of each party's commitments under the IGAB. It is not apparent to the independent reviewer that the evaluation program to assess and report on implementation of the Party's commitments, and subsequent evaluation reports and public summaries are being undertaken as required by this clause.

The independent reviewer is of the opinion that regular and transparent reporting is vital in improving governance, promoting accountability and engendering ongoing public confidence.

The Australian Barramundi Farmers association's submission stated

'The National Biosecurity Committee (NBC) provides strategic oversight of the national biosecurity system, intergovernmental relationships and the operation of IGAB and is required to report annually to the Agriculture Ministers on the work program, IGAB implementation and performance indicators and benchmarks. To my knowledge, NBC has not released a communique in two years, and I could not find any annual reports. I also could not find if the 2017 review recommendations were implemented and reviewed'.

During the course of the review, the independent reviewer observed commitment from governments and the NBC to improve reporting and transparency. However, from an external view, publicly available information regarding the NBC is outdated and, in some cases, difficult to find. There are a number of links from NBC webpages that are outdated, and published content indicates that the last NBC communique was issued in 2022. There is significant work to do in this space.

The independent reviewer believes that improved transparency and communication from the NBC is essential. National biosecurity system communication and co-design through initiatives such as the NBS should be an ongoing focus/commitment for the NBC.

The independent reviewer considers the IGAB is clear in terms of its governance arrangements, reporting, evaluations and performance indicators. While the independent reviewer is supportive of this approach being articulated in the IGAB, copies of workplans and associated progress reports have not been identified and it is therefore unclear whether this obligation is being met.

Considering the NBC's level of management and oversight of the national biosecurity system, it is essential the NBC complies with its obligations as outlined in the IGAB and is resourced and supported to do so. In the interests of efficiency and transparency, the NBC should make use of existing reporting structures to ensure this increase in reporting is not burdensome or duplicative. Given the overwhelming call for increased transparency, changes to the IGAB to reduce reporting requirements should not be considered.

Recommendation 4

That agriculture ministers require the National Biosecurity Committee to meet their reporting obligations under the Intergovernmental Agreement on Biosecurity, including submitting the annual work plan and making and reporting progress against that work plan, and publicly reporting its findings.

The independent reviewer has looked for ways to assist the NBC in discharging its duties, and to increase transparency. One option which the independent reviewer discussed in each of her consultation meetings, is whether the NBC should take more of a strategic approach, over its current operational approach as provided for in clause 29 of the IGAB.

Feedback from stakeholders was generally supportive of a strategic shift in the NBC's approach to assist in meeting its obligations. Submissions contained suggestions such as the need for the NBC to:

- develop a prioritisation matrix to assist in allocating resources across the biosecurity system
- be more accountable, transparent and fulfil its reporting obligations
- be subject to a review of its terms of reference and those of its subcommittees
- increase the involvement of relevant industry stakeholders in biosecurity decision-making
- ensure its members have appropriate authority to deliver on the intent of the IGAB
- consider development of a risk appetite model to drive eradication, containment, and management approaches to biosecurity risks
- consider a move to *general consensus* decisions regarding emergency responses instead of unanimity (the independent reviewer notes this topic is more aligned to the National Management Group (NMG) than the NBC and further explores this in [Chapter 2](#)).

The independent reviewer sees merit in many of the suggestions to improve the functioning of the NBC and in turn, the effectiveness of the IGAB. While the functioning of the NBC is not directly within the remit of this review, it is pivotal in the successful implementation and effectiveness of the IGAB.

The NBC continues to make progress towards improving cooperation between jurisdictions. Throughout consultation, the independent reviewer was also pleased to hear the NBC is proactively making positive steps to improve its functioning and should be encouraged and supported to do so. As an example, the NBC has moved to quarterly meetings instead of monthly meetings, to facilitate strategic discussion and focus on systemic issues rather than purely operational and business as usual matters.

The independent reviewer was advised by the NBC secretariat that NBC members, observers and sectoral committees met in September 2024 to discuss the strategic direction of the committee and progress a plan for change which would lift the focus and activities to that of a strategic board (or similar). The intent of this plan is to achieve the transformational change necessary to sustain effective national biosecurity policy and operational frameworks.

- The NBC plays a critical role in supporting our biosecurity system to meet its current and future challenges, through leadership of the national biosecurity framework and the provision of strategic advice to the AMM on biosecurity preparedness, prevention and response.

- Strategic prioritisation of efforts to bolster the national biosecurity system include effective allocation of resources across preparedness, prevention and response in key areas including training and capacity building, stakeholder engagement, and having response frameworks that can work in new and complex situations. This work can be enhanced by sharper identification of areas of greatest risk and shaping of opportunities.
- Members of the NBC are actively considering how best to provide strategic direction across the national biosecurity system, reflecting the cost and complexity of biosecurity threats, and the pursuit of a collaborative approach to the work of the NBC sectoral committees and related forums in the wider biosecurity response ecosystem.

There is opportunity here to harness this progress and expand it to achieve greater results through a variety of mechanisms such as:

- taking on some characteristics of an effective board, such as developing 3-year forward work plans which are publicly available and regularly reported on:
 - An effective board is defined as a board that is thoughtful, disciplined and professional in its approach; utilises careful forward planning, efficient operation of board meetings, regular performance assessments and effective chair arrangements (AICD 2019).
- ensuring NBC members have the appropriate combination of expertise and decision-making delegation – not necessarily technical skills, but strategic skills
- improved governance via key performance indicators, an operational plan and publication of an annual plan
- a clearer, more transparent understanding of linkages between environment, human health, interstate trade and impacts on international trade when making decisions
- developing and publicly releasing a communication strategy that details its forward workplan, key decisions and key priority areas for the national biosecurity system
- a review of the NBC's subcommittees, their purpose and membership, how and when they interact with the NBC and linkages back to the IGAB.

There are numerous pathways to build on the NBC's excellent progress to date. These options should be explored by agriculture ministers, in conjunction with AGSOC, the NBC and its subcommittees to achieve optimum results for this important committee.

Recommendation 5

That the National Biosecurity Committee undertakes a review of its structure, membership and terms of reference (including that of its subcommittees) to ensure it has a strong foundation to continue to effectively provide strategic leadership in managing national approaches to emerging and ongoing biosecurity policy issues.

1.5 Shared responsibility

Australia's national biosecurity system is built on shared responsibility and its success relies on the cooperation, investment and actions by all governments, industry bodies, importers and exporters, farmers, miners, tourists, researchers and the broader community (Craik et al. 2017).

The IGAB outlines the sharing of responsibility and cooperative partnership of governments. It states

'The Parties recognise that biosecurity is a responsibility shared by all Australians and that cooperation, investment and action with industry and the community are essential for a strong national biosecurity system. Governments' agreements and arrangements with industry and the community are separate but related to this Agreement (Clause 5).'

The term 'shared responsibility', which was created in the 1996 Nairn review *'Australian Quarantine, a shared responsibility'* (Nairn 1996), was mentioned in numerous submissions, with many calling for clarity on what this means. The glossary of the IGAB defines shared responsibility as 'Shared responsibility means everyone takes responsibility for biosecurity matters, whether under their direct control or not. Everyone has an obligation to take action to protect Australia from pests and diseases'.

The independent reviewer has reflected on this definition and on each of the submissions and considers the term 'shared responsibility' is not the cause of the described issues. The provided definition is clear enough to imply that responsibility for biosecurity goes beyond those employed in biosecurity roles. The independent reviewer considers it is the implementation and communication of shared responsibility that gives rise to ambiguity.

Numerous resources exist to educate Australians on their roles and responsibilities in maintaining Australia's biosecurity status. For example, the:

- [Queensland Department of Primary Industries](#) website states 'All people in Queensland have a general biosecurity obligation (GBO) under Queensland's Biosecurity Act 2014 to ensure they do not spread a pest, disease or a contaminant. This applies to corporations too' (Qld DPI 2021).
- [Western Australian Department of Primary Industries and Regional Development](#) website outlines the responsibilities of industry, government and the community. WA's Biosecurity Council of Western Australia 'agreed that clearly defined roles and responsibilities of government, industry and community were a necessary first step to underpin biosecurity investment decisions' (WA DPRID 2023).
- [New South Wales Department of Primary Industries](#) website states 'We can only successfully manage biosecurity when every person plays a part. The idea that biosecurity is a shared responsibility means we all need to do our bit to protect the economy, environment and community from biosecurity threats'. The website contains educational resources for primary producers, small landholders, farm workers and visitors, horse owners, beekeepers, veterinarians, schools, community and many others (NSW 2024).

The independent reviewer suggests there is value in the Commonwealth and jurisdictions promoting such resources to increase the likelihood of preventing pests, diseases and weeds entering or spreading in our country.

Throughout the consultation process, the independent reviewer heard that the responsibility for biosecurity is not truly shared, and there is a strong opinion that primary producers carry most of the effort, investment and action burden.

The National Farmers' Federation submission stated

'Australia boasts a favourable pest and disease status, which not only protects industry, community and environment from adverse impacts but provides a valuable competitive advantage in the international marketplace. Maintaining this favourable biosecurity status through a robust biosecurity system is a shared responsibility.'

'Risk creators', a term which is used to describe groups such as importers, exporters, tourism, transport operators and citizens, are not seen to contribute equally, yet these groups expect a strong biosecurity system. While there are clear circumstances where commercial benefits can be tied to specific individuals or entities, there are a great many activities with a range of public and private benefits, rendering the funding arrangements unclear.

The Fisheries Research and Development Corporation submission stated

'Risk creators (e.g. seafood imports, aquarium fish imports, ballast water) do not contribute to biosecurity in proportion to the potential risks created for the aquaculture industry, fisheries and aquatic environments that provide important ecosystem services and are public resources utilised by Indigenous communities, recreation fishers, tourism operators and others.'

The notion of shared responsibility extends to the cost sharing arrangements in place for managing biosecurity incidents. This is further explored in [Chapter 2](#). It is clear to the independent reviewer that there is a need for effective and concise advice about the roles and responsibilities of all Australians in maintaining our biosecurity status (Box 1).

Box 1 Shared responsibility – roles and responsibilities

Industry contributes to biosecurity-related activities through compulsory levies (such as through rural RDCs), via subscriptions (such as through Plant Health Australia and Animal Health Australia) and voluntary contributions (such as through Industry Funding Schemes). Industry also undertakes activities to ensure compliance with legislation and protocols, general surveillance, management and eradication activities.

Industry

- report and manage pests and diseases on their land
- follow guidance and legislation to prevent introduction and spread of pests and disease
- undertake surveillance, eradication, control and funding activities to provide the best return on investment
- proactively engage with government on biosecurity issues.

Government has a broad leadership role as communicators, educators, facilitators, coordinators, assessors and protectors. Industry expects governments' approach to align with industry operations, to minimise burden and to be transparent.

Government

- takes a leadership role in biosecurity related emergency responses
- supports industry in their approaches to eradication and control of pests and diseases
- promotes understanding of biosecurity and its' importance
- directs investment in biosecurity to areas of public benefit
- ensures engagement with industry and the community.

The community play a vital role in managing Australia's biosecurity such as the management and reporting of pests and diseases by all land holders.

Community members

- report biosecurity issues
- follow guidance and legislation to prevent introduction and spread of pests and disease
- remain aware of their role and how they can help.

Source: Adapted from [Biosecurity roles and responsibilities](#), Biosecurity Council of Western Australia 2023.

The independent reviewer affirms that responsibility for biosecurity is shared between governments, industry groups, the community, not-for-profit, research and community organisations.

Campaigns throughout the COVID-19 pandemic educated the community on how to reduce the spread of the virus and keep themselves safe. Educating the public and industry on their role in biosecurity should not be reserved for times of outbreak or disaster, it should be ongoing and kept at the forefront of people's minds.

The impacts of COVID-19 on the IGAB and related observations are discussed in [Chapter 3](#) of this report.

1.6 Implementation

In considering the implementation of the IGAB, the independent reviewer looked to the core commitments of its signatories and whether those commitments are in fact being met.

Commitments pertaining to cost sharing and funding commitments are explored further in [Chapter 2](#).

Clause 33 of the IGAB lists the core commitments of the signatories as follows:

- adhering to and consistently applying the key biosecurity principles (clauses 12–20)
- maintaining Australia’s biosecurity status, recognising its benefits and protections
- a nationally consistent approach to system activities, measures and components
- fulfilling, financially resourcing to maintain an effective biosecurity system and being accountable for their commitments under this Agreement and emergency response deeds and agreements
- sharing responsibility for biosecurity with others as appropriate, including facilitating partnerships between governments, industries and the community
- sharing biosecurity information, data, intelligence and other knowledge necessary for the efficient functioning of the national biosecurity system with other Parties and, where appropriate, with industry and the community
- managing national priority pests and diseases (aquatic and terrestrial) under a Party’s responsibility
- ongoing stakeholder engagement and communication, and partnership building
- further developing and continuously improving the national biosecurity system within their jurisdiction and in partnership with other Parties, recognising that the rate of progress will be contingent on available resources.

Throughout consultation, the independent reviewer heard that there is a great deal of inconsistency in how jurisdictions manage their biosecurity commitments. This should not be taken as a criticism, more so that there are factors which prevent jurisdictions from meeting their commitments.

The breadth of responsibility differs between states and territories, with some jurisdictions having lower financial contributions and more incursions or having increased biosecurity resources and a lower level of incursions and responses. It is unreasonable to expect the jurisdictions to have a consistent approach to biosecurity when their area size, resources, financial capacity, biosecurity risk status and proximity to areas of higher risk vary so vastly. The independent reviewer is cognisant of her review remit, however, suggests that consideration be given to how the jurisdictions can be supported in attaining a consistent approach to biosecurity. Numerous stakeholder submissions to this review raised the problems created for agricultural trade and supply created by differing trade restrictions between states and territories.

There are numerous other factors that could impact jurisdictions' ability to deliver the aforementioned activities, including:

- financial constraints of each government and limited access to funds for emergency responses
- differing priorities of governments
- strain on the system caused by increased cost and reported increase in frequency of responses
- difficulties reaching consensus on approaches
- increased response strain on particular jurisdictions
- lack of ramifications for not meeting obligations (to a lesser extent).

The independent reviewer heard claims that industry has no voice in biosecurity decision-making and that there is a lack of communication from the NBC on how and why biosecurity decisions are made. Consideration should be given to how governments and industry can be brought together for the benefit of a transparent and truly national biosecurity system.

The independent reviewer heard the IGAB described as a vital framework for cooperative government efforts to achieve optimal biosecurity outcomes. However, the IGAB cannot be effective without consistent implementation.

1.7 Legal standing

The IGAB is a voluntary agreement signed by the Commonwealth of Australia and states and territories. Clause 57 of the IGAB states

'This Agreement is not intended to create legal relations between the parties. Notwithstanding this, the Parties intend to comply with all provisions in this Agreement'.

While intergovernmental agreements are not legally binding, they express the commitment of governments to work together on certain objectives or goals. Several submissions suggested this is not preferred, and that the IGAB should be made legally binding.

The independent reviewer considered this, however, determined that enforcing the agreement as a legally binding document may in fact have negative outcomes and could result in parties withdrawing their involvement in the IGAB. The voluntary commitment of governments demonstrates a united approach in managing Australia's biosecurity system.

The independent reviewer is therefore not making any recommendations to vary the legal standing of the IGAB.

1.8 Information sharing

Clause 33f of the IGAB states that each Party commits to

‘sharing biosecurity information, data, intelligence and other knowledge necessary for the efficient functioning of the national biosecurity system with other Parties and, where appropriate, with industry and the community’.

Throughout consultation, the independent reviewer was keen to hear how this was working in practice and if mechanisms for sharing biosecurity data could be improved in any way. The independent reviewer was interested to hear that information sharing between the relevant parties was not reported to be effective, and in some circumstances, was non-existent.

The independent reviewer is aware there are many contributing factors to why information is not being shared, including the absence of a national platform to do so. Over the course of the past few months, the independent reviewer has become aware of multiple existing mechanisms that could be leveraged to facilitate data sharing between governments, should there be an appetite to do so. Three relevant mechanisms are described in Box 2.

Box 2 Three relevant data sharing mechanisms

Data sharing protocol between the Commonwealth, state and territory biosecurity agencies

The IGAB contains Australian governments agreement to a collaborative approach to collecting, collating, analysing, storing and sharing biosecurity information to improve decision-making and enhance operational efficiency.

The intent of the [protocol on biosecurity data and information sharing](#) is to encourage a culture of responsibility to share data and information except where there are legal or other significant impediments. This protocol is a voluntary agreement which came into effect on 4 October 2018. The protocol:

- expands upon the agreement established by the IGAB by providing greater guidance around the two-way sharing of data and information to support the management of biosecurity risks
- recognises multilateral sharing of data and information (between Commonwealth and jurisdictional agencies) including that of a sensitive nature needed to prevent, mitigate and manage the impact of potential or actual biosecurity risks, and those events and issues that may impact the export of Australian agricultural products.

The Intergovernmental Agreement on Data Sharing between Commonwealth and state and territory governments

The [intergovernmental agreement on data sharing](#) is not biosecurity specific. It commits all jurisdictions to share public sector data as a default position, where it can be done securely, safely, lawfully and ethically. The agreement recognises data as a shared national asset and aims to maximise the value of data to deliver outstanding policies and services for Australians. The agreement came into effect on 9 July 2021.

The Australian Agricultural Data Exchange

The [Australian Agricultural Data Exchange](#) was designed by the agriculture industry to enable data from disparate sources to be shared, discovered, merged, and re-used in a secure cloud environment. It assists in facilitating the transfer of production and value chain data and adopts industry standards as a baseline.

Additionally, the independent reviewer is aware that an [Information Sharing Agreement](#) between MPI New Zealand and DAFF was signed in November 2024. Both parties have committed to sharing information to support the:

- maintenance of border biosecurity
- prevention, detection, investigation, prosecution and punishment of biosecurity offences
- enforcement of a law imposing a pecuniary penalty
- protection of the life, health or safety of a person or groups of persons
- protection of the environment
- protection of public revenue
- achievement of the purposes or objects of the New Zealand Biosecurity Act 1993 and the *Australian Biosecurity Act 2015* (Cth) and Acts administered by the Australian Minister for Agriculture, Fisheries and Forestry.

The independent reviewer was pleased to hear of the variety of mechanisms currently available to support effective information sharing. However, it is unclear if these mechanisms are being accessed to their full potential.

Throughout consultation, the independent reviewer heard many views on the lack of data sharing, and potential methods to improve it.

The Australian Barramundi Farmers Association stated

‘Under clause 33f, the IGAB states the ‘sharing of biosecurity information, data, intelligence and other knowledge is necessary for the efficient functioning of the national biosecurity system with other parties and, where appropriate, with industry and the community’. The ABFA questions whether data sharing capability is currently hampered through a lack of standardisation and access. This would likely undermine our biosecurity system’.

The Fisheries Research and Development Cooperation stated the

‘IGAB needs to provide greater guidance and commitment to national data sharing initiatives such as the Australian Agrifood Data Exchange. Together with the rapid increase in use and capabilities of AI, digitisation and real time sharing of biosecurity related data will increase the ability of IGAB members to prepare, identify and respond to biosecurity threats. IGAB should consider greater focus on biosecurity related benefits that may be possible through developments in AI and digital data collection and sharing’.

The 2017 Craik report also identified and made recommendations to improve data sharing in the biosecurity space. That review recommended:

- Data and knowledge sharing should be a core commitment of jurisdictions under IGAB2. Minimum standards and specifications should be agreed for datasets (Recommendation 39).

- Within the period covered by IGAB2, the Australian Government agriculture department should lead the development of a common information architecture for the national biosecurity system (including data-sharing protocols, standards and authority protocols) for all jurisdictions to share and access biosecurity data and information in the national interest (Recommendation 40).

Ministers agreed that easily accessible, comprehensive and reliable data is essential for anticipating, responding to and managing national biosecurity risks and for decision-making. A stronger commitment to data and knowledge sharing was included in the revised IGAB. In 2017, the NBC endorsed National Minimum Dataset Specifications for surveillance and emergency activity across each sector. AGSOC also signed a national data sharing protocol in 2018 to facilitate data sharing between the Australian Government and state and territory biosecurity agencies.

It is unclear to the independent reviewer what the current status of the Craik report's recommendations on information sharing are.

Further, the independent reviewer notes the NBS Implementation Plan (Commonwealth of Australia 2024b) which looks for ways to align approaches to avoid duplication and to capitalise on existing data and information. Strengthening existing activities to support greater collaboration, information and data sharing is also a listed outcome of the NBS between 2023 and 2026. The recently released NBS Action Plan (Commonwealth of Australia 2024a) commits to reviewing the existing national data sharing system to identify next steps needed to deliver a coordinated and interoperable surveillance data sharing system which will also take into account lessons learned from COVID-19.

The lack of uptake of formal national mechanisms to share biosecurity information and data amongst governments, industry and the community is of concern to the independent reviewer. The need to share this information and data is clearly articulated in the IGAB, was agreed by Ministers in response to the Craik review (Agriculture Ministers' Forum 2018), and the independent reviewer therefore does not see merit in recommending any changes be made to the IGAB. This appears to be yet another example of weaknesses in the implementation of the IGAB and previous recommendations being unactioned, not a failing of the IGAB itself.

While the independent reviewer is not making any recommendations to vary the information and data sharing clauses of the IGAB, the independent reviewer is confident that the effectiveness of the IGAB would increase through improved implementation.

The downfall in governments' ability to effectively implement the IGAB fully is no doubt due to a variety of complex, interlinked reasons such as competing priorities, differing interpretations, poor funding, lack of resources, and strain on an already strained system.

The independent reviewer's findings and recommendations on the funding and cost sharing elements of the IGAB are explored in the next chapter.

2 Cross-jurisdictional cost sharing and funding arrangements

The terms of reference for this review require the independent reviewer to consider existing cost sharing arrangements for Australia's biosecurity system and the potential for implementation of new funding arrangements for cross-jurisdictional biosecurity activities. As discussed in the introduction (interpreting the scope), on 18 July 2024 the independent reviewer and the NBC agreed that this element of the scope be refined to observations around the cross-jurisdictional IGAB-related funding and cost sharing frameworks, exploration of the current arrangements and potential recommendations for further work.

2.1 Relevant clauses of the IGAB and definitions

A key issue for the independent reviewer was determining whether there are in fact issues with the way the IGAB describes the funding responsibilities for jurisdictions' own biosecurity activities and whether current funding arrangements in the context of funding national biosecurity activities (as specified within the IGAB), are adequate.

The independent reviewer focused on the 3 clauses of the IGAB that specify cost sharing and funding in relation to jurisdictional responsibilities:

- Clause 15: Biosecurity activities are undertaken according to a cost effective, science-based and risk-managed approach.
- Clause 16: Governments contribute to the cost of risk management measures in proportion to the public good accruing from them. Other system participants contribute in proportion to the risks created and or benefits gained.
- Clause 33d: Each party commits to fulfilling, financially resourcing to maintain an effective biosecurity system and being accountable for their commitments under this agreement and emergency responses deeds and agreements.

While these clauses do not outline what the actual costs, and distribution of costs are, they do outline key considerations such as being cost effective, science and risk based, in proportion to public good and risk. The independent reviewer has investigated the clauses and sought clarity from jurisdictions on their understanding and implementation of those key considerations.

For clarity, it is important to recognise that the national (sometimes referred to as 'the Australian') biosecurity system is made up of:

- the Commonwealth's biosecurity commitments and responsibilities, as described in Clauses 33 and 34 of the IGAB, and
- state and/or territory biosecurity commitments and responsibilities, as described in Clauses 33 and 35 of the IGAB.

In addition, the concepts of funding and cost sharing discussed in this section of the report are broader than just the existing cost sharing arrangements for emergency eradication responses (as

detailed in the emergency response deeds and agreements and off-deed arrangements (a deed-like response, cost shared between affected government and industry parties)). For ease of expression in this report, the emergency response deeds and agreements are referred to as 'the deeds'. Funding and cost sharing concepts also encompass potential funding and cost sharing approaches for other aspects of the national biosecurity system, such as preparedness, surveillance, research and development, and management activities. Throughout consultation, the independent reviewer heard that there was sometimes confusion about the delineation between the deeds and the IGAB. Barring a reference to the emergency response deeds at clause 33d of the IGAB, the deeds are entirely separate to the IGAB.

2.2 Sustainable biosecurity funding

In this review, the need for sustainable biosecurity funding was a topic raised by most biosecurity stakeholders, including questions regarding actions taken against the funding recommendations made in the 2017 Craik report. The 2017 Craik report acknowledged that short-term funding approaches were not sustainable and detailed options for improved financial sustainability of funding, including, but not limited to:

- maintaining government's level of appropriation funding
- redirecting expenditure to areas of greatest risk return
- state and territory governments agreeing to a common cost recovery framework
- reviewing biosecurity levies and rates/charges that apply to biosecurity system participants
- increasing funding by implementing a levy on incoming shipping containers (sea and air) or alternatively increasing the Full Import Declaration charge, increasing the Passenger Movement Charge, and implementing a land-based levy.

The independent reviewer heard far-reaching support for the financial sustainability recommendations put forward in the Craik report. The independent reviewer also heard criticism from a broad cross-section of stakeholders about the lack of transparency surrounding actions taken against those accepted recommendations. Industry representatives spoke of an 'erosion of trust', because of a lack of communication from governments and the NBC on these matters.

The independent reviewer understands that a number of these proposals were pursued, some more successfully than others. However, there continues to be issues with the ongoing sustainability of funding for the national biosecurity system and transparency of actions taken by governments.

Commonwealth biosecurity funding arrangements

The independent reviewer heard that historically, Commonwealth biosecurity funding was made up of government appropriations, relying heavily on short-term measures, typically 3 to 4-years in duration, and cost recovered revenue through fees and charges for biosecurity regulatory activities. Not all expenses were cost recovered.

In the 2023–24 Budget, the Australian Government realised a significant change to how the Commonwealth biosecurity system is funded, delivering permanently increased funding through the [Sustainable biosecurity funding](#) package. The independent reviewer understands that this is the first

time Australia has had long-term sustainable and predictable funding for the Commonwealth biosecurity system (DAFF 2023a).

In its submission to this review, DAFF explained that ‘Sustainable Commonwealth funding is an important outcome in the context of the national biosecurity system as it underpins in large part the Commonwealth’s commitment to the IGAB and ability to meet the bulk of its responsibilities outlined in the agreement’.

DAFF explained that the sustainable biosecurity funding package included:

- additional measures to increase cost recovery revenue, aligned with the cost of regulatory activity, supported by a commitment to annually review regulatory charges. DAFF sees this as giving effect to shared responsibility for biosecurity (consistent with clause 16 of the IGAB)
- delivery of increased transparency and accountability of Commonwealth biosecurity funding and expenditure via the publication of a new annual report (commencing October 2024), the [Biosecurity funding expenditure report 2023-24](#)
- a [proposed Biosecurity Protection Levy](#), the bills for which remain before the Senate.

Prior to the delivery of these elements, DAFF explained that there was a lack of visibility and clarity over how the Commonwealth biosecurity system was funded and how the various funding packages functioned. A number of submissions to this review also raised the ‘sea container levy’ recommendation from the Craik report and asked that this be enacted. Earlier efforts to introduce a container or import levy are reported on [DAFF's website](#), including the reasoning for deciding not to proceed with the proposal.

The independent reviewer also heard that Commonwealth funding contributions to nationally cost shared emergency eradication responses are separate to appropriation funding provided in DAFF’s annual budget. This funding is appropriated to the Department of the Treasury and funded through the Pest and Disease Preparedness and Response Programs Specific Purpose Payment. DAFF explained that this provides the mechanism for the Commonwealth to pay its cost sharing contributions on an individual response basis. DAFF also acknowledged that the large number of emergency responses, particularly in the plant sectors, are placing increasing pressure on government and industry resources, elevating risk in relation to parties’ ability to continue to provide resourcing for responses consistent with clause 33d of the IGAB (DAFF submission).

State and territory biosecurity funding arrangements

During discussions with the independent reviewer, state and territory biosecurity representatives explained that while their base funding amounts naturally differed, their budget allocations were dependent on their respective governments balancing the needs of other policy areas against biosecurity. As such, all jurisdictions had in common that funding for base biosecurity functions (that is, activities other than emergency responses) could be unpredictable and was generally subject to time limited government appropriation packages. Unlike the Commonwealth (and acknowledging that this is a recent occurrence), no jurisdiction has long-term predictable funding for all biosecurity functions.

All states and territories also explained that they relied on the IGAB, given the high-level signatories (the Prime Minister, and respective premiers and chief ministers), and the emergency response deed

arrangements, as key mechanisms when requesting funds from their treasuries to meet emergency response financial obligations. Every representative said that the IGAB is an extremely important document for this purpose, and only Tasmania mentioned a fund specifically for emergency responses. The IGAB is also a reminder that biosecurity is a national collaborative effort, and the agreement is regularly referred to by governments when discussing matters such as budget funding.

During discussions with the independent reviewer, it became clear that funding is a key inhibitor to state and territories' ability to effectively implement all their responsibilities under the IGAB, particularly with increased resourcing required to meet emergency response commitments. A number of viewpoints expressed the complexity of this situation:

- All jurisdictions described the strain on available funding, stating that the cost sharing and staff commitments required for the increasing number of emergency responses is impacting government's ability to meet other responsibilities under the IGAB. Biosecurity risks continue to grow in number and complexity and sustainably funding the system remains one of the greatest risks to its viability. This increasing pressure often leans towards reactivity (i.e. funding responses) rather than proactivity (i.e. funding prevention and preparedness activities) (Queensland Department of Agriculture and Fisheries submission).
- All jurisdictions stated that increased requests for emergency response funding, and the larger quantum of those requests, is resulting in increased scrutiny from respective treasuries. To date requests have been met for these funds, but jurisdictions feel there may come a point at which further funds cannot be provided.
- There is a need to better target existing funding to national priorities, and a need to better determine and communicate national priorities. The independent reviewer considers that the discussion and recommendations in Section 1.4 on the structure and function of the NBC would assist in providing this leadership.
- Several jurisdictions have needed to rely on funds from other sources for activities that form core responsibilities under the IGAB (clauses 33 and 35). These include managing incursions of pests, industry biosecurity education programs, surveillance programs and transition to management arrangements (when a response to a pest incursion moves from 'eradication' to 'management'). These funding sources include the Commonwealth and RDCs.
- Community members make comparisons between government responses to natural disasters and government responses to biosecurity incidents and are aware of disaster response arrangements in place after flood/bushfire/cyclone events. Increasingly, natural disasters and biosecurity events can overlap and impact each other, and there are no disaster recovery framework-like arrangements for biosecurity incidents, even though these events can impact regional and rural economies.
- There is also a disjoint between the amount of resourcing available versus community and industry expectations for what biosecurity should deliver.

All jurisdictions expressed the need for sustainable biosecurity funding for the national system. While there are examples of individual states and territories working to address the sustainability of funding, there has been no move to date to address this from a national perspective. Individual jurisdictional examples include:

- the [Queensland Biosecurity Strategy 2024-2029](#) documents the intent to develop by 2029 a sustainable biosecurity funding model to ensure Queensland's biosecurity system prioritises activities according to risk, including co-investment with partners and increased transparency of biosecurity activities (State of Queensland 2024).
- In 2019, Tasmania increased its biosecurity inspection fees and charges to better reflect actual costs and share biosecurity costs between risk creators, increased funding to Tasmanian biosecurity functions and established a funding mechanism that is responsive to the level of risk (Department of Primary Industries, Parks, Water and Environment 2017).
- Western Australia has conducted a 2022 *statutory review of the Biosecurity and Agriculture Management Act 2007*, and the review's [stage 3 discussion paper](#) covers themes such as resourcing and funding for aspects of the state's biosecurity system (amongst other topics), as well as the need to meet the state's obligations under the IGAB. The final report has been submitted and is currently being considered by the WA government. Any findings and recommendations about funding will be relevant to the sustainability of funding for the national biosecurity system.

The independent reviewer notes the NBS Implementation Plan and NBS Action Plan contains sustainable investment as one of the 6 priority areas for action (Box 3). The implementation plan is intended to guide the activities and future planning work for the NBS, over its 10-year life span. A key difference between the IGAB and the NBS is that the IGAB is an agreement between governments, but the NBS is intended to reflect the collaboration and joint efforts between governments, industry, representative bodies, First Nations Australians and research organisations.

Box 3 NBS priority area – sustainable investment

The NBS was developed by the NBC to ‘provide a collective vision for Australia’s future biosecurity system’. The strategy was endorsed by agriculture ministers and released on 9 August 2022. Relevant to biosecurity cost sharing and funding, one of 6 priority areas for the NBS is sustainable investment, which aims to:

‘Develop long-term sustainable biosecurity funding and investment approaches (including new funding streams and models) that recognise the value of government, industry and the community investing in biosecurity to support the system’s growing needs and priorities’ (DAFF 2022a).

The NBS Action Plan 2024 documents the activities to be delivered between 2024 and 2026. There are 5 activities listed against the sustainable investment priority area:

- Conduct a national biosecurity system sustainable funding review to identify funding needs and priorities and to inform additional funding resources and mechanisms, as needed.
- Establish a new national Biosecurity Capability and Investment Forum, with an initial focus on delivering a long-term investment plan.
- Review of national surveillance, preparedness and response cost sharing arrangements and development of a national cost sharing options paper.
- Develop new public reporting of national biosecurity system funding and expenditure including Commonwealth, states and territories and relevant industry bodies.
- Undertake analysis to evaluate the return on investment for biosecurity activities to inform future measures.

Source: Commonwealth of Australia 2024a.

The sustainable investment priority area of the NBS Action Plan will be an important body of work, and the independent reviewer shares views received from industry stakeholders that full and early implementation of the NBS and its action plan is desirable.

2.3 Emergency response deeds

Although the emergency response deeds are not strictly included in the independent reviewer’s terms of reference, Clause 33d of the IGAB states that each party commits to fulfilling their obligations and being accountable for their commitments under the emergency response deeds. The implementation of this clause is within the independent reviewer’s remit.

The deeds themselves were not part of the independent reviewer’s examination, but the independent reviewer received extensive commentary about their operation. The deeds are an important component of the national biosecurity system and, of note, one of the few formal biosecurity cost sharing mechanisms between governments and industry. The independent reviewer notes that signing up to these deeds is voluntary.

Formal emergency response deeds establish arrangements for preparing for and responding to exotic pests, weeds and diseases that are detected within Australia and have the potential to impact animal, plant or human health, or the environment. These three agreements are the:

- [Emergency Animal Disease Response Agreement](#) (EADRA) – terrestrial animals (livestock) and poultry. AHA are the custodian for the EADRA and there are currently 24 signatories to the EADRA including all governments, AHA and industry bodies.
- [Emergency Plant Pest Response Deed](#) (EPPRD) – plant pest incursions including grains, horticulture, nuts, and forestry. PHA are the custodian for the EPPRD and there are currently 48 signatories to the EPPRD including all governments, PHA and industry bodies.
- [National Environmental Biosecurity Response Agreement](#) (NEBRA) – environmental pests, including marine and social amenity. These can include pests such as invasive ants and animals. DAFF is the custodian for the NEBRA and all governments are signatories. There are no non-government signatories.

There is no aquatic emergency animal disease response deed, although the independent reviewer heard that consultation had occurred over a number of years to negotiate such an agreement, to no avail.

The independent reviewer understands that the 3 deeds are on a rolling 5-year review cycle, and that the custodians of the deeds are in place to:

- assist emergency response committees by providing guidance and interpretation on the IGAB
- play an administrative role for cost sharing parties during an emergency response
- review, maintain and update the agreements.

Operation of the cost sharing elements of the deeds

As required in the review's terms of reference, the independent reviewer has considered how cost sharing works in practice in terms of the deeds.

A national response to a biosecurity incursion is triggered when an exotic pest, weed, or disease is detected in Australia. Exotic means it is not native to or established in Australia.

In the event of an outbreak, a high-level committee of chief executives of government parties and senior industry personnel is formed to manage response plans and budgets. This committee, the NMG, is also responsible for decision-making on policy and resource allocation issues. The composition of each NMG differs depending on the response. The NMG is advised by technical consultative committees which include state Chief Veterinary Officers or Plant Health Managers, and other personnel with relevant technical expertise, including industry representatives.

A national response is only cost shared if deemed technically feasible to eradicate. Once the NMG agrees on an emergency response (and depending on the particular deed being used), it is legally binding between the Australian Government, state and territory governments, and, for animal or plant incursions, the custodians, AHA or PHA and representatives from relevant plant and animal industries.

National emergency responses are funded through a combination of cost shared activities and normal commitments of the jurisdiction in which the incursion occurs. The response agreements detail what activities are cost sharable versus considered normal commitments. The division of cost

shared activities of a response between government and industry are determined by the pest, weed or disease category under the response agreement. These divisions are classified according to:

- the proportion of public benefit (reducing damage to natural ecosystems, reducing potential effects on human health or nuisance, or reducing damage to amenity flora/fauna) accruing from eradication of the pest, versus
- the impact on commercial agricultural interests, international trade interests and/or national or regional economic implications.

Current arrangements dictate that the Commonwealth always pays 50% of the government share of response costs and the states and territories share the remaining 50% of the government share. The contribution for each state or territory is determined by formulas in each deed, as is the contribution of the industry signatories.

The deeds, and the circumstances to which they are applied are complex and contain a large amount of detail that the independent reviewer did not examine. The independent reviewer did however query why the deeds only relate to eradication, and this investigation is documented later in this report.

The case for and against revising the deeds

The independent reviewer has heard a variety of different views about the need to revise the emergency response cost sharing deeds, some of them conflicting. Of note, the terms of the deeds themselves are reviewed every 5-years in a process led by each deed's custodian and involving signatories to the deeds. The outcomes of those reviews are maintained as confidential to the signatories of the deeds and as such are not visible to other participants in the national biosecurity system.

Views relayed to the independent reviewer about revising the deeds can be separated into 3 groups and are summarised below.

1) Deed structure is fit for purpose and no revision is needed:

- The benefits of working under the deeds is that they are pre-agreed, and the NMG members have decision-making authority, making response times faster.
- There is a risk in revising the deeds that industry signatories may not re-join the agreement.
- The deeds are complex, and criticism of the deeds can arise from parties that do not fully understand them.

2) Deed structure is not fit for purpose and needs revision:

- Affordability and how to fund an agreed response can cause paralysis in decision-making.
- Response decision-making needs to be completed faster with more focus on the economic and socio-economic impacts of these responses.
- The current 3 deeds struggle to manage more complex biosecurity emergencies covering more than one sector and impacting plant, animal and environmental sectors.

- The deeds should recognise the One Health approach, using pathway risk analyses to capture impacts to not only agriculture but to the environment, social amenity and in some cases, human health.
- Arrangements for a national surge capacity and capability to cope with very large and/or multiple emergencies could be considered.
- The lack of an aquatic deed creates the need for off-deed arrangements which in turns slows down response times.
- A need to review the equity of the existing deeds in terms of the cost sharing arrangements and responsibilities of deed custodians.
- Commentary relating to shared responsibility was discussed in the previous chapter, but was raised with particular relation to the emergency deeds and those industries that are not signatories to the deeds. Multiple stakeholders viewed non-signatories, who are beneficiaries, as representing an unfair situation when the impacted industry is not contributing to the management response.
- Differing interstate trade requirements add complexity to an already complex situation and can contribute to the regulatory burden of producers.
- A need for adoption of a risk appetite model to facilitate faster decision making processes and consideration of making response decisions via a quorum, within a capped timeframe.

3) Additional cost sharing activities should be included in the deeds:

- Activities such as preparedness, surveillance and containment should be included as there are no pre-agreed cost sharing arrangements in place for these activities.
- The current structure of only having formalised cost sharing for eradication-based responses is viewed by some stakeholders as skewing the preference for response towards eradication, instead of there being consideration of other actions such as containment.

The independent reviewer has queried whether the existing formalised cost sharing frameworks (response deeds) result in driving decisions in particular directions, and why eradication often seems to be a default response. A number of stakeholders also commented on the observation that all responses attempt to go down the eradication route, because this is the only method with a guaranteed cost sharing arrangement. Whereas there are undoubtedly situations relating to pests and diseases that could be effectively contained, managed or monitored instead of eradication responses being mounted. This has led the independent reviewer to question whether the lack of formalised cost sharing arrangements for non-eradication responses influence the approaches to managing biosecurity incursions, and to suggest that mechanisms for other forms of cost sharing are created.

Off-deed arrangements for cost sharing of eradication responses

There are currently several active responses which pre-date the establishment of the relevant response agreement (red imported fire ant) or where the impacted parties cross both plant and animal (red witchweed) (more information available at [current responses to outbreaks](#)). In these cases, responses are managed as 'deed-like', where a response agreement may be consulted to

guide decision making and define responsibilities; however, there are no legally binding cost sharing agreements in place.

The independent reviewer was informed that there are more off-deed arrangements being used now and such arrangements have also been used for cost sharing in response to several aquatic biosecurity incidents, in the absence of an aquatic response deed. Some stakeholders expressed satisfaction with the process for setting these arrangements up, as there was a well-established model to follow. The independent reviewer also heard that these arrangements could result in:

- the home jurisdiction responsible for leading the response underwriting the costs while they wait for others to provide their agreed share of the costs
- greater delays in decision making
- more inequity in cost sharing.

The Queensland Department of Agriculture and Fisheries submission stated

‘For responses that do not meet the criteria to be considered under a deed (non-deed arrangements—e.g. containment activities) there is far less certainty from a coordination and financial perspective, because there is no pre-agreed mechanism or budget across jurisdictions, often resulting in underfunding and/or delays and a potentially ineffective or inefficient response. Entry to these types of agreements is voluntary which can also mean that some risk creators and/or beneficiaries of action are not contributing to a response.’

PHA stated

‘A broader deed would be preferable to a proliferation of off-deed arrangements, as the latter would be complex to administer, time consuming to draft and to reach agreement on, particular in relation to funding.’

2.4 Other cost sharing arrangements

In circumstances where a deed does not apply, such as non-emergency response activities (preparedness, surveillance or containment activities, for example), there is far less certainty from a financial and coordination perspective due to the lack of pre-agreed funding arrangements across the jurisdictions. This can result in activities being under resourced, or being prioritised below responses, to enable jurisdictions to meet their formal cost sharing/response obligations.

The independent reviewer is aware that there is no cost sharing deed for other activities such as joint projects, or research and development. These funding requests tend to be managed on an ad hoc basis, and where funding is available, is usually allocated with 50% from the Commonwealth and the remaining 50% prorated from states and territories on a per capita basis.

There are several concepts relevant to cost sharing and funding for non-response arrangements that were raised with the independent reviewer and are discussed in the following section.

Sharing funds with higher risk locations

During meetings with government and industry representatives, examples were given of regions where a higher risk of incursion of particular pests and diseases exists, yet the responsible jurisdictions do not have the resources to adequately fulfill their biosecurity responsibilities. The [Northern Australia Biosecurity Strategy 2030](#) (DAWE 2020) documents reasons why northern Australia faces an increased biosecurity risk, including the:

- number of exotic plant and animal pests and diseases rapidly establishing in our nearest northern neighbour countries
- challenges associated with running surveillance and response in remote locations
- funding for people, capability, offshore monitoring, expertise, infrastructure, technology and response is not adequate to meet increasing biosecurity requirements in the north.

This strategy also states, 'The funding for implementing agreed national biosecurity actions has not been provided by jurisdictions and unless resources and capabilities are better utilised and shared, more money will be spent on eradication and responses to plant and animal pest and disease outbreaks (DAWE 2020).'

The independent reviewer also heard that in these instances, the state and territory system does not align with Australia's biosecurity risk. When the majority of biosecurity resources and benefitting industries are deployed in the southern states but arguably the higher biosecurity risk is in the north of Australia, investment in biosecurity risk does not align on a national level.

A better understanding of Australia's biosecurity risk profile as a country would allow better prioritisation of limited resources according to that risk and the pathways for that risk to arrive in Australia.

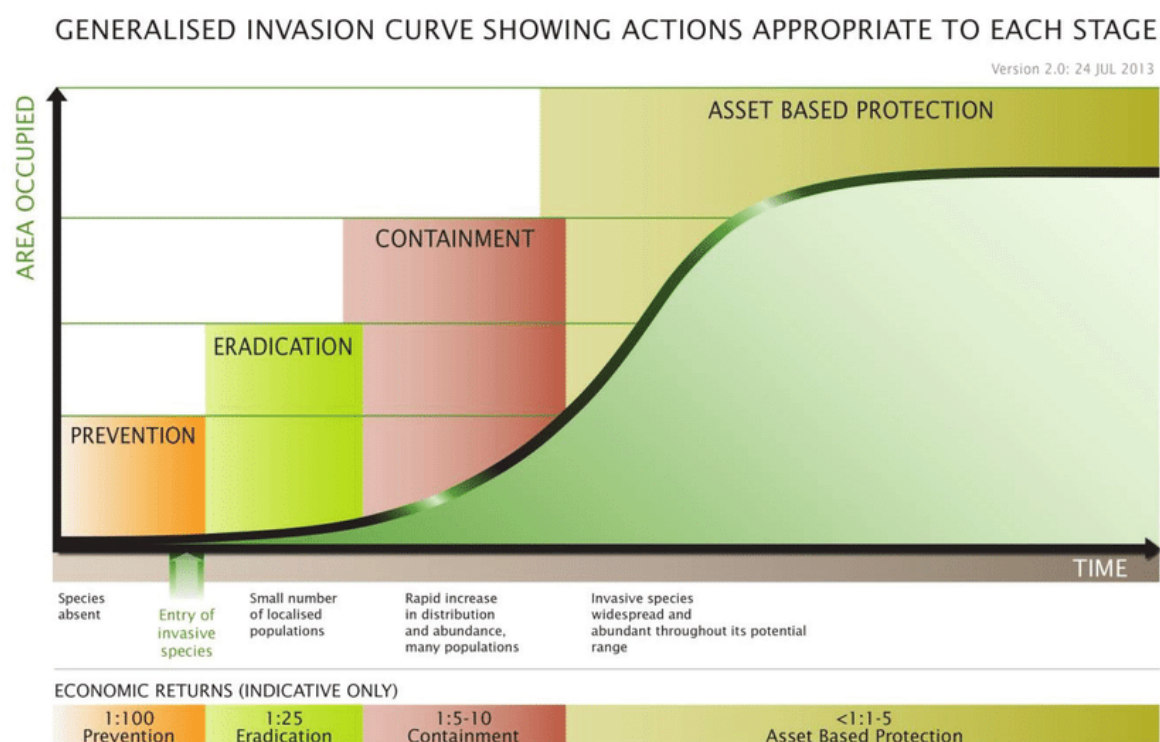
Funding for prevention and preparedness gives greater return on investment

As discussed in earlier sections of this report, the independent reviewer heard views about available biosecurity funding being strained by the increasing number of emergency responses. While the independent reviewer was unable to locate data to support the reported increase in emergency responses, this messaging was consistent with all parties consulted.

An interrelated concept was also raised during consultation, being the application of risk return principles. This is described in the NBC's [National framework for the management of established pests and diseases of national significance](#), using the generalised invasion curve as an example (Figure 4).

The invasion curve demonstrates the return on investment at different stages of an invasive species invasion. The greatest economic return on investment occurs when focussing resources on prevention, that is, before an exotic pest arrives.

Figure 4 Generalised invasion curve



Source: NBC, 2016. Attributed to Biosecurity Victoria.

Multiple stakeholders explained that eradication costs are ‘soaking up’ biosecurity funding, and jurisdictions had difficulty funding the other components of the system as a result. Multiple research reports document the improved economic returns realised by investing in prevention strategies. Prevention strategies (stopping the pest from arriving, preparing for its arrival and being able to detect its arrival early), however, were described by biosecurity stakeholders as ‘invisible’ parts of the biosecurity system and therefore harder to attract funds for.

Funding for environmental biosecurity

During the consultation for this review, multiple stakeholders (government, agriculture/aquaculture industries and environmental groups) commented that environmental biosecurity was undervalued in comparison to agricultural biosecurity. Issues heard by the independent reviewer related to funding and include:

- Seeking a share of limited funding is difficult when competing against plant and animal biosecurity threats and the economic importance of those associated industries.
- Environmental health and cultural costs from damage to the environment are not ‘monetised’ or cost recovered. The funding needed for environmental biosecurity is difficult to quantify, whereas that needed for agricultural biosecurity is an economic equation.
- The impact of exotic plant and animal pests on agriculture is better known, but the wider ramifications of an environmental pest on whole ecosystems is not always apparent. There is also generally more fulsome information available about agricultural pests than environmental ones.

- The NEBRA is only funded by government, but there are many industries that stand to benefit from responses to environmental pests. The shared responsibility of biosecurity was discussed in this context, and questions raised about why industries such as tourism are not encouraged to sign a cost sharing deed for eradication of environmental biosecurity pests.
- There is a perception that the NEBRA is rarely used in comparison to the EADRA and the EPPRD, and that the reason for this is because the NEBRA is solely government funded.

Research and development investment

Commentary was received throughout the review about the need for more research and development to enable a better science and risk-based approach to biosecurity. Stakeholders also spoke of the need for control, surveillance and diagnostic solutions, as well as data sharing and technological systems to support biosecurity decision-making.

There are a number of different arrangements in place to propose, fund and conduct biosecurity related research. A non-exhaustive list includes the:

- [Plant Biosecurity Research Initiative](#)
- projects conducted by PHA ([Our Work | Plant Health Australia](#)) and AHA [Animal Biosecurity Research, Development and Extension Strategy](#)
- DAFF's [Environmental Biosecurity Project Fund](#)
- [Catalysing Australia's Biosecurity](#) program between DAFF and CSIRO
- the [Centre of Excellence for Biosecurity Risk Analysis](#), jointly funded by DAFF and New Zealand MPI
- individual RDC work programs that contain biosecurity-related projects. For e.g. MLA's [Research & Development](#) program; GRDC's [Research, Development & Extension Plan 2023-28](#); and Horticulture Innovation Australia's [Strategic levy investment into research and development](#)
- DAFF's [Biosecurity Innovation Program](#).

Recognising that different parties have responsibility for investment in different areas, there is still the potential for research gaps or duplication. The independent reviewer also heard that there is no overarching coordination or national prioritisation of this research (by, for example, an oversight body like the NBC), and that not all members of the biosecurity community are aware of the projects being conducted nor their results.

As discussed in Section 1.4 of this report, the independent reviewer suggests that consideration be given to formalising a role for RDCs in collaborating with the NBC. The independent reviewer heard that Horticulture Innovation Australia currently have over \$86 million invested in active projects across their biosecurity portfolio. Horticulture Innovation Australia reported that the projects aim to:

- mitigate biosecurity threats
- drive productivity gains
- enable future-focused surveillance
- foster a culture of innovation.

RDCs investment in pest and disease preparedness, management and education activities, integrated pest and disease management, and supporting industry's access to products could be leveraged to better prepare Australia for future biosecurity threats. The independent reviewer acknowledges that RDCs will undertake biosecurity research and extension to support the sustainability and growth of their levied industries, irrespective of a national strategy, which is appropriate.

There would also be benefit in having a national overarching coordination point to maximise the use of biosecurity funding to assist stakeholders in the system. This would also assist with avoiding duplication, and increasing visibility of the projects and their results, and transparency of the funding sources and uses.

2.5 Ideas for future consideration

During this review, the independent reviewer has heard views from a wide variety of stakeholders as well as drawing on observations from her own experience. The following concepts are for consideration in any current and future work on national biosecurity system funding and cost sharing. While these concepts are not considered a perfect fit for Australia's biosecurity arrangements, the independent reviewer sees value in some elements.

New Zealand's single cost sharing deed

New Zealand has a single cost sharing deed, the [Government Industry Agreement for Biosecurity Readiness and Response](#) (GIA). Under the GIA, industry organisations and the New Zealand MPI, as the government's representative, sign a deed that formally establishes a biosecurity partnership. The GIA deed sets out the principles and commitments for each signatory to engage in the wider biosecurity system and co-invest to improve the collective biosecurity capacity and capability of industry and government in readiness and response.

Key differences between the GIA and Australia's three emergency response deeds are that the GIA:

- is multisectoral, having signatories from animal, plant and aquatic industries. The aquatic representation is limited to green lipped mussel, king salmon and Pacific oyster industries. There are also no environmental sector signatories.
- has one custodian – the New Zealand Government. There are no equivalent bodies to AHA and PHA in New Zealand's biosecurity system.
- formally acknowledges the integral role of Māori in the development of New Zealand's primary sectors, and the strong interest Māori have in biosecurity – Kaitiakitanga (guardianship and conservation).
- encompasses the whole biosecurity continuum, not just eradication responses. This includes pre-border, border, readiness and response and pest management activities. Joint decision-making and cost sharing are formalised for the readiness and response component of the system.
- MPI has agreed to cover a fixed proportion of readiness and response costs in recognition of the following:
 - identifying risk creators (called 'exacerbators' in the GIA) for a specific readiness or response activity is often not possible

- apportioning costs between risk creators and beneficiaries for a specific readiness activity or response is very difficult
- international agreements constrain the conditions under which costs can be recovered where risk creators are importers.

Cost sharing between government and industry for biosecurity readiness activities outside of those formalised in the deed can be agreed in Operational Agreements. The independent reviewer heard that the GIA has assisted building partnerships between government and industries, and that key stakeholders are committed to mitigating risks before they impact producers. The 'readiness' component to the deed, and New Zealand agriculture being export focused (and therefore focused on maintaining a good biosecurity status), has further reduced risks that may potentially threaten New Zealand's ecological systems.

The independent reviewer recognises that a number of concepts contained in the GIA are worth consideration in future reviews of the Australian biosecurity system, as:

- a single deed could hold all information relating to Australia's approach to emergency responses thereby increasing transparency and reducing any administrative inefficiency.
- limiting aquatic industry involvement to certain production industries where disease risk can be eradicated/contained, as differentiated from disease risk in the open ocean (for example), may be a method for formalising engagement with Australia's aquatic sectors.
- one deed could enhance collaboration between sectors to consider all aspects of an outbreak including animal, plant, aquatic and environmental.
- all biosecurity activities across the continuum could be considered for cost sharing, including prevention, preparedness and containment.
- the integral role of First Nations people in the development of primary industry and environmental sectors and their connection to land could be affirmed.
- the concept of a 'shared responsibility' to managing Australia's biosecurity risk could be further promoted.

Australia's Research and Development Corporations

As discussed in Section 1.4 of this report, the independent reviewer has suggested that consideration be given to formalising a role for RDCs in collaborating with the NBC. This suggestion is further strengthened by the role of RDCs in commissioning and funding biosecurity-related research. The independent reviewer also queried whether RDCs could have a role in enacting the current emergency response cost sharing deeds. Many RDCs have significant resources at their disposal, funded primarily by statutory research and development levies (or charges), with matching government funding.

After discussion with relevant stakeholders, the independent reviewer is of the opinion that formal involvement of RDCs as, for example, custodians of the emergency response deeds would be difficult to achieve. Selecting a single representative RDC for this role with the EADRA or EPPRD would not fairly represent the industry signatories to the deeds. Governance arrangements would also need thought, as RDCs routinely have board members who represent different industries.

RDCs collectively manage around \$800 million per annum in research, development and extension funding ([Council of Rural RDCs - funding](#)), of which biosecurity is a part. It therefore stands to reason that RDCs should have more formal arrangements in place for biosecurity collaboration/input across the national system. The independent reviewer acknowledges that the Plant RDCs do collaborate via the [Plant Biosecurity Research Initiative](#).

What is unclear to the independent reviewer, is how the biosecurity related research conducted by RDCs, is adopted and/or communicated within the wider biosecurity system.

An additional cost sharing agreement

Mixed views were received during consultation about the need for a fundamental review of the existing emergency response deeds. No deed-specific recommendation is being made by the independent reviewer, in recognition that the complexity of funding and cost sharing (including through the use of Australia's existing deeds) across the national biosecurity system is best approached at a whole of system level.

Given the commentary above regarding the need for additional agreements on cost sharing for non-eradication activities, the independent reviewer believes consideration should be given to an additional agreement/s for this purpose, as:

- reviewing the existing emergency response deeds with a view to expanding their remit may create a situation where important eradication cost sharing decisions are delayed due to industry bodies not agreeing to the expanded deeds.
- an overarching response deed may be preferable. One that specifies how the custodians and signatories to the existing deeds work together in cross-sectoral pest incursions.
- an additional new agreement that covers a framework for cost sharing for other elements of biosecurity cost sharing for activities such as prevention, preparedness, and surveillance would remove the risk of rendering the current deeds too complex for operation.

2.6 Concluding remarks

The overall funding situation for Australia's biosecurity system is complex, and there is no clear picture of total investment in the national system. This is primarily because the range of investments and contributions by all key parties is not routinely captured, reviewed, invested, or reported on a national basis (Craig et al. 2017).

The independent reviewer heard that there are key differences in funding arrangements between the Commonwealth, and state and territory governments. These differences include the way each state and territory seek access to additional biosecurity funds, the ways those funds are managed, and the amount of funds available.

Following consultation, the independent reviewer has ascertained the following:

- The cost sharing and funding clauses in the IGAB (Clauses 15, 16 and 33d) are clear and governments understand their intent.
- Funding is tight across the board, with the biosecurity system under significant stress as incursions and responses grow in number, complexity and cost.

- Affordability of agreed responses continues to be an issue, as does the sustainability of biosecurity funding and the ability to fund non-eradication elements of the system.
- There are gaps in the funding framework. There are deeds for cost sharing to fund emergency responses, but other activities such as preparedness, surveillance, or containment are not subject to these deeds and can be underfunded as a result.
- There is a need for more nuanced prioritisation framework for biosecurity activities and better allocation of funding for areas that arguably face greater incursion risk of serious pests and diseases.
- Limited funding in Australia's biosecurity system significantly impedes government's ability to effectively implement the obligations under the IGAB. State and territory governments, rather than the Commonwealth, are more at risk of not meeting their IGAB commitments.
- There are differing understandings of the operation of the emergency response deeds, and differing views on the need for change or expansion of those deeds.
- There is an increase in incidents involving pests that affect multiple sectors including animals, plants, the environment and sometimes humans, and a general view that responses are becoming more costly, and funds are spent on eradication rather than prevention. Existing deeds were not written with these situations in mind, and more off-deed arrangements are being used to cost share responses. The speed of response regarding decision-making has also been criticised by some stakeholders.
- There is a need for greater transparency of national biosecurity funding and the activities conducted using this funding, including better coordination of research and development, and better prioritisation of funding allocation.

These issues are not new and have been detailed in other reports and reviews. Notably, the 2017 Craik report, and the 2022 Senate Rural and Regional Affairs and Transport References Committee inquiry into the [Adequacy of Australia's biosecurity measures and response preparedness, in particular with respect to foot-and-mouth disease and varroa mite](#). To quote the senate inquiry, 'It is apparent to the committee that the premier matter of concern for all stakeholders of the biosecurity system is access to adequate and long-term funding. This concern has been reflected time and again in the findings of various reviews and reports into Australia's biosecurity system' (page 119).

The independent reviewer is of the opinion that the system will have difficulty remaining viable while it is underfunded, under resourced and so reactive. If funding to support biosecurity activities is not increased, priorities will need to be reviewed critically.

The independent reviewer is aware that there is a substantial amount of work underway in terms of Commonwealth sustainable biosecurity funding and across the national biosecurity system through the implementation of the NBS, amongst other things – all of which is precluded from consideration as per the terms of reference. The independent reviewer is also aware that a number of previous reviews made recommendations for actions to investigate and improve sustainable funding for the national system, but that to a large extent the actions taken, or not taken, are not visible to all biosecurity stakeholders.

This is a large body of extremely complex and important work. The independent reviewer is of the opinion that recommending another review of the cost sharing and funding arrangements for the national biosecurity system would be counterproductive and resource intensive. Available resources should instead be focusing on:

- finalising agreed work against previous recommendations, or closing that work if circumstances have changed
- improving the transparency of those actions to biosecurity stakeholders, with regular reporting
- the actions included in the NBS Action plan for sustainable investment.

The independent reviewer recommends Ministers ensure that government departments involved in this work are resourced appropriately.

Recommendation 6

That agriculture ministers and agriculture senior officials consider delaying any potential future reviews of biosecurity cost sharing and funding until such time as recommendations from previous reviews, and work scheduled in the National Biosecurity Strategy Action Plan 'Sustainable Investment' priority are finalised and implemented or closed. Ministers and Agriculture Senior Officials should also ensure that this work is appropriately prioritised and resourced.

3 Did the COVID-19 pandemic impact the functioning of the IGAB?

The COVID-19 pandemic caused widespread disruptions across the world. As far as Australia's biosecurity system is concerned, there were impacts on the ability to manage biosecurity surveillance and incursion responses due to initial limitations in communication and reduced ability to move people across borders. Importation supply chains were disrupted, which temporarily reduced biosecurity risks.

As part of the terms of reference for this review, the independent reviewer was asked to consider what impact, if any, the COVID-19 pandemic had on the functioning of the IGAB and if any consequential amendments may be required. The independent reviewer specifically asked this question in the discussion paper, and in each consultation meeting held.

The reviewer's early observations were:

- COVID-19 showed that the country can adapt and work together to achieve results. The pandemic highlighted the magnitude of impact of an outbreak on Australia and shone a spotlight on the importance of biosecurity.
- Introduction of more advanced technology and remote working arrangements streamlined some biosecurity processes through increased participation, virtual work environments, and faster dissemination of information.
- Initial restrictions on staff movements greatly impeded on-the-ground biosecurity activities, with some jurisdictions reporting the need to apply for up to 300 permits a day to allow their officers to undertake their duties. Other jurisdictions noted reduced ability for staff to be 'shared' across borders.
- The COVID-19 restrictions 'clouded' biosecurity emergencies in the plant, animal and environment space, resulting in delayed reaction times, poor prioritisation of responses and lack of resources due to lockdowns.
- Emergency-fatigue was mentioned by several government representatives. This resulted in biosecurity updates and news becoming overwhelming or ultimately ignored due to the significant increase in communications.

The independent reviewer's early observations did not change greatly throughout the public consultation process. The consensus throughout consultation was that the IGAB stood strong during the pandemic and its functioning was not impacted at all. This is not to say that the biosecurity system was not impacted – more so that the IGAB itself continued to serve its purpose.

The independent reviewer heard several reports of how the pandemic actually improved the way governments interacted with each other, particularly through an enhanced use of technology to meet and communicate virtually. People usually employed in biosecurity supported the COVID-19 response at the Commonwealth and state levels, strengthening connections between biosecurity and public health agencies.

The pandemic also increased the public's general understanding of biosecurity and highlighted its importance in keeping Australia free of the world's most invasive pests and diseases.

In terms of potentially futureproofing the implementation of the IGAB during another pandemic situation, several other topics were raised and are discussed in the following sections of this report.

3.1 One Health

The topic of Australia adopting a 'One Health' approach to biosecurity was raised in numerous submissions and meetings, particularly when referencing the interconnectedness of the health of humans, animals and the environment.

The One Health Initiative was established by the World Health Organization (WHO) in 2021 to bridge the efforts of multiple sectors and global entities to achieve Sustainable Development Goals through a holistic and systematic approach (WHO 2024).

The One Health Initiative's mission is to mainstream the One Health approach into national policy and strategy, ensuring that health interventions, and programs are designed with a One Health lens to address the underlying factors of human diseases through collaborative, multisectoral efforts (WHO 2024).

As described by the WHO, the One Health approach comprises public health, veterinary and environmental sectors and is particularly relevant for food and water safety, nutrition, the control of zoonoses, pollution management, and combatting antimicrobial resistance (Box 4). Although not explicitly stated, biosecurity is an important component of this approach in Australia.

One Health is also a key priority of the interim Australian Centre for Disease Control (CDC) who adopted the WHO definition of One Health. The interim CDC's work is guided by the One Health approach recognising the connection between the health of people, the environment and animals (CDC 2024). The interim CDC is part of the Department of Health and Aged Care, with an initial focus on improvements in the following areas:

- preparing for public health emergencies with multi-jurisdictional training exercises
- improving the national public health surveillance system
- building capability in One Health and health security.

Box 4 One Health definition and key underlying principles

One Health is an integrated, unifying approach that aims to sustainably balance and optimise the health of people, animals, and ecosystems. It recognises the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and interdependent.

The approach mobilises multiple sectors, disciplines, and communities at varying levels of society to work together to foster well-being and tackle threats to health and ecosystems, while addressing the collective need for healthy food, water, energy, and air, taking action on climate change and contributing to sustainable development.

Key underlying principles include:

- 1) equity between sectors and disciplines
- 2) sociopolitical and multicultural parity (the doctrine that all people are equal and deserve equal rights and opportunities) and inclusion and engagement of communities and marginalised voices
- 3) socioecological equilibrium that seeks a harmonious balance between human–animal–environment interaction and acknowledging the importance of biodiversity, access to sufficient natural space and resources, and the intrinsic value of all living things within the ecosystem
- 4) stewardship and the responsibility of humans to change behaviour and adopt sustainable solutions that recognise the importance of animal welfare and the integrity of the whole ecosystem, thus securing the well-being of current and future generations
- 5) transdisciplinarity and multisectoral collaboration, which includes all relevant disciplines, both modern and traditional forms of knowledge and a broad representative array of perspectives.

Source: One Health definition and key underlying principles (OHHLEP 2022).

DAFF has a One Health program which is led by the Office of the Australian Chief Veterinary Officer and reflects One Health in its [Statement of Strategic Intent](#). DAFF's One Health program aims to support One Health approaches to better prevent, detect and respond to diseases impacting animals, humans and the environment. This includes global advocacy for future pandemic prevention by addressing the risk of diseases emerging at their source in animals and the 'drivers' behind that emergence (DAFF 2023b).

DAFF informed the independent reviewer that it has also supported Wildlife Health Australia to deliver the One Health Surveillance Initiative. This was established in 2022 to better protect wildlife and strengthen the capacity of Australia's biosecurity system to identify and mitigate risks to human, animal and environmental health.

Commentary from the Sheep Producers' submission stated

'The IGAB should adopt a One Health approach. Recent biosecurity events, notably the COVID-19 pandemic, and importantly also the 2022 outbreak of Japanese encephalitis virus (JEV), have highlighted the interconnectedness of human and animal health and the underpinning systems for preventing and responding to disease outbreaks.'

'given recent experiences, particularly with the response to the zoonotic JEV, it is clear that a formal adoption of a One Health approach is needed in the IGAB. This should foster collaboration, coordination and communication between the agriculture and

human health sectors, and ultimately a more effective and efficient biosecurity response system. The 2022 National Biosecurity Strategy also makes the point that the JEV outbreak ‘clearly demonstrates the importance of using a One Health approach to addressing risks.’

Wildlife Health Australia’s submission stated

‘Diseases with a One Health-type impact are exposing gaps in our biosecurity arrangements that hopefully a refreshed IGAB can address. Wildlife sits at the nexus of these types of issues. A future where responses of this nature are run “Off Deed”, or through ‘Other Arrangements’ is not optimal, Japanese encephalitis being the most recent example.’

The independent reviewer met with the chair of the Commonwealth Government’s COVID-19 Response Inquiry, Ms Robyn Kruk AO, to discuss any potential findings and overlap in the reviews. The views expressed in the IGAB review’s public submissions are consistent with the recent release of the COVID-19 Response Inquiry Report which affirmed the panel’s support for the CDC and the National Emergency Management Agency working with Commonwealth agencies such as DAFF, the Department of Climate Change, Energy, the Environment and Water and the Department of Health and Aged Care (DHAC) to better consider the linkages between plant, animal, ecosystem health and human biosecurity incidents. The panel also noted this could be achieved through strengthened arrangements for emerging infectious diseases using a One Health approach (PM&C 2024).

In its submission to the IGAB discussion paper, DAFF also stated that following the COVID-19 pandemic, National Cabinet raised the importance of, and need for, a nationally consistent approach to biosecurity threats and increased the socialisation of biosecurity with governments and the community.

The independent reviewer has considered publicly available information, as well as the information provided in public submissions and believes there is considerable merit to the One Health approach and value in it being referenced in the biosecurity setting. However, the independent reviewer does not recommend including it in the IGAB itself.

The reviewer reiterates her intention to minimally disturb and maintain the integrity of the IGAB due to the overwhelming response that it performs the function it was designed to do.

If governments were to consider an increased focus on the One Health approach in the future, the IGAB could arguably already allow for this through clause 8 – Implementation and ongoing management of this Agreement will occur in conjunction with, and be complementary to, other agreements and arrangements in place to manage biosecurity, which include agreements and arrangements for human biosecurity and national security.

3.2 Visibility and effectiveness of biosecurity

Another common theme heard by the independent reviewer was that biosecurity is ‘*difficult to see*’, meaning that if the biosecurity system is working effectively, it appears from the outside as though nothing is happening. The pandemic has certainly highlighted that there is something to see here, and that proactive prevention and preparedness is needed.

As discussed in Section 1.3, the independent reviewer also defined an ‘effective biosecurity system’ as ‘a system that is agile, prepared and responsive in protecting Australia’s biosecurity status, where all Australians commit to sharing responsibility, actively contributing, collaborating and sharing information’.

The independent reviewer is convinced that even through the pandemic, the IGAB demonstrated its worth through the collaboration the country witnessed between state, territory and Commonwealth governments in working together to reduce the spread of COVID-19.

This pandemic was definitely a revelation for government in terms of the magnitude of the financial commitment to fight an infectious disease that was so widespread and fast moving. Although human health related, COVID-19 showed us what such a large incursion can do to society as well as the financial impost to control, manage and recover.

3.3 Zoonotic disease and zoonosis

The disconnect between human, animal, plant and ecosystem health was raised by numerous individuals, mainly in relation to monitoring for and management of, potential zoonoses (diseases and infections that are naturally transmitted between vertebrate animals and humans). While the IGAB already includes zoonoses (clauses 5 and 7c), biosecurity stakeholders suggested that the IGAB be amended to reflect who is responsible for monitoring the transition of a disease or infection from humans to animals or the environment, and vice versa.

The reviewer is not recommending any additional clauses in the IGAB for the management of zoonotic diseases. However, given the extensive commentary received on this issue, the reviewer would strongly encourage governments to communicate widely the measures they have in place to share information and collaborate in monitoring and managing zoonotic infections.

In its submission, DAFF sees an opportunity to modernise the IGAB through the integration of a One Health approach, where appropriate, and articulate the roles and responsibilities of health, environment and other relevant jurisdictional agencies such as the newly established interim CDC.

To support the timely identification and management of emerging and re-emerging zoonotic diseases, DAFF and the DHAC jointly lead the Human Animal Spillover and Emerging Diseases Scanning (HASEDS) group. The HASEDS group undertakes horizon scanning for information about emerging and re-emerging zoonotic diseases, undertakes rapid risk assessments and provides advice to the Australian Chief Veterinary Officer, the Australian Chief Medical Officer and the Australian Chief Environmental Biosecurity Officer to help inform preparedness action (DAFF 2023b).

The Memorandum of Understanding (MoU) signed in 2017 between DAFF and the Department of Health (now Health and Aged Care) establishes the framework for implementing the joint responsibility for biosecurity, imported food and development of food standards, disease management, regulation of genetically modified organisms, management of antimicrobial resistance and pesticides and veterinary medicines (DAFF 2022b).

The reviewer suggests that consideration be given to determining how an incorporated approach to future pandemic management on concurrent biosecurity emergency responses might occur.

Both this review, and Ms Kruk's review highlight that some of the measures during COVID-19 were very restrictive, with negative reactions from the public regarding their social cohesion, personal freedom and economic and human rights. The border closures which contributed to these limitations significantly increased the difficulty for biosecurity officers managing incursions across state lines.

Although not strictly a recommendation, Dr Allan considers that it would be favourable to Australia's biosecurity system for states and territories to work in unison in the event of future pandemics, particularly in facilitating essential biosecurity staff and resources to be moved across state and territory borders to respond to biosecurity incidents. A lack of unison, collaboration and communication will greatly hamper the effectiveness of such biosecurity responses.

3.4 Emergency management procedures

Throughout consultation, the independent reviewer heard concerns over a potential future human pandemic occurring simultaneously with a major biosecurity incursion. If simultaneous events were to occur, it was assumed that the biosecurity response would 'take a back seat' to the human pandemic. Hearing this messaging prompted the independent reviewer to look at what emergency management procedures were in place in Australia.

The Australian Government Crisis Management Framework (the framework) is the Australian Government's overarching policy framing Australia's national crisis management arrangements. The framework takes an all-hazards approach to crisis management, recognising the need for consistency across the Australian Government's crisis management systems in preparation for the full spectrum of hazards that may affect life, property or the natural environment (PM&C 2024b). There are provisions within the framework to coordinate concurrent events should a zoonotic outbreak with significant consequences on both human and animal health occur, including escalation points were an event to move into the catastrophic space (i.e. Tier 4).

The framework outlines crisis management arrangements for identified hazards and lists:

- lead ministers
- lead coordinating senior officials
- Australian government coordinating agencies
- corresponding national plans.

For domestic biosecurity crises, the Australian Government Biosecurity and Agricultural Response Plan (AUSBIOAGPLAN) is applied with the Federal Minister for Agriculture becoming the Lead Minister, DAFF the Australian Government Coordinating Agency and the DAFF Deputy Secretary responsible for Biosecurity becoming the Lead Coordinating Senior Official.

The AUSBIOAGPLAN, previously named the Australian Government Agricultural Incident Plan (AGAGINPLAN) provides a mechanism for Australian Government coordination in response to plant and animal biosecurity and agricultural incidents; and should be read in conjunction with the Australian Government Crisis Management Framework. However, the independent reviewer notes that arrangements for the management of biosecurity incidents primarily impacting human or public health (including those resulting from zoonoses) are outside the scope of the AUSBIOAGPLAN. Such incidents fall to the control authority that sits with the DHAC for human health under the *Biosecurity*

Act 2015 (Cth). Further, there is an agreement between DAFF and DHAC on collaboration for joint events including a joint operating concept for diseases like avian influenza.

The independent reviewer agrees with stakeholder comments that a more holistic approach by the Australian Government is needed when making decisions during future pandemics to consider the broader health, economic, social, education and human rights impacts including on concurrently occurring biosecurity response activities. The independent reviewer believes learning from the COVID-19 pandemic and implementing Ms Kruk's recommendation of 'maintain[ing] regularly tested and reviewed agreements between relevant national and state agencies on shared responsibilities for human health under the *Biosecurity Act 2015* (Cth), with a focus on facilitating a 'One Health' approach that considers the intersection between plant, animal and human biosecurity' (Recommendation 24, PM&C 2024a) should be strongly considered.

In light of the support for the rigor of the IGAB during the COVID-19 pandemic, there are no recommendations to amend any clauses or suggest any futureproofing requirements to the current IGAB, but rather some considerations for its function/operation during future pandemics and national emergencies.

4 Previous and ongoing reviews

The terms of reference for this review specifically precluded the independent reviewer from duplicating the efforts and assessments of other reviews, many of which are ongoing or have recommendations in the process of being implemented.

There are numerous activities underway or that have been recently completed which impact on, or refer to, the IGAB including senate inquiries, independent reviews and Inspector-General of Biosecurity reviews. Table 2 summarises these activities for awareness of potential duplicative reviews and provides the basis for the independent reviewer's decision not to consider matters contained within them.

Table 2 Summary table of related biosecurity reviews

Review	Scope of review
The Beale Report	<i>One biosecurity: a working partnership</i> (the Beale Report, Beale et al. 2008) recommended moving from the concept of 'quarantine' to that of 'biosecurity', adopting a risk management approach, prioritising partnerships with non-government stakeholders and the development of a National Agreement on Biosecurity, a new Biosecurity Act and a new statutory office of Inspector-General of Biosecurity.
The Matthews Review	A review of Australia's preparedness for the threat of foot-and-mouth disease (Matthews 2011) led to a dedicated FMD Taskforce (active 2012 to 2014) and development of a National FMD Action Plan.
2017 Intergovernmental Agreement on Biosecurity Review (the Craik Review)	The Craik review (2017) looked at the operation of the national biosecurity system as underpinned by the original 2012 IGAB. The Craik review recognised that biosecurity threats are increasing rapidly, recommended a series of major reforms with a 5-to-10-year timeframe, and led to the 2019 IGAB between Australian governments.
Senate committee inquiry	This senate committee inquiry assessed the <i>Adequacy of Australia's biosecurity measures and response preparedness, in particular with respect to foot and mouth disease (FMD) and varroa mite</i> (Senate Rural and Regional Affairs and Transport References Committee 2022). It also considered response to, and implementation of previous reports into biosecurity and any related matters.
Biosecurity imports levy (container levy)	A biosecurity imports levy was recommended by both the 2017 Craik review and the 2019 senate committee inquiry. The levy was unsuccessful and abandoned by government in 2020.
National Biosecurity Strategy	The <i>National Biosecurity Strategy</i> (DAFF 2022a) provides a collective vision for Australia's future biosecurity system, a biosecurity system that protects Australia's way of life. The strategy, which is endorsed by all agriculture ministers, was released on 9 August 2022. An NBS implementation plan (Commonwealth of Australia 2024c) and Action Plan (Commonwealth of Australia 2024b) have been released. The National Biosecurity Strategy builds on existing work to provide a strategic direction for Australia's biosecurity system.
DAFF Biosecurity 2030 Roadmap	The <i>DAFF Biosecurity 2030 Roadmap</i> (DAFF 2024) is DAFF's strategic roadmap for protecting Australia's environment, economy and way of life. The roadmap replaces the previous <i>Commonwealth Biosecurity 2030: Action Plan 2023</i> (DAFF 2023c). The roadmap documents the Australian Government's strategic actions to further strengthen Australia's risk-based biosecurity system. It also maps these delivery elements against the Australian Government's contributions in the National Biosecurity Strategy.
Inspector-General of Biosecurity reviews in progress	Environmental biosecurity: management and policy implementation. This review will examine DAFF's effectiveness in addressing high-risk environmental biosecurity concerns and the implementation of the Chief Environmental Biosecurity Office.

Review	Scope of review
	<p>Import risk analyses: This review will examine the management and application of the biosecurity import risk analysis process.</p> <p>Maturity of the department's biosecurity regulatory system: This review will assess the progress of the department's strategies to improve its biosecurity regulatory maturity.</p>

Although specifically precluded from duplicating the efforts and assessments of these reviews, this has not prevented some of the matters being raised during consultation meetings and in written submissions.

The independent reviewer heard an overwhelming number of views that their submissions to this review were largely the same as those submitted for previous reviews. Further, that recommendations from previous reviews were yet to be implemented, even though they have been supported by government.

It has become apparent to the independent reviewer that there is a lack of transparency over the outcomes of previous reviews. If numerous reviews are reaching the same conclusions and making similar recommendations, efforts should be redirected to implementing and finalising them, over the initiation of further reviews.

Outcomes and the volume of previous reviews has caused the independent reviewer to consider the parameters of this review, specifically the need to conduct an independent review of the IGAB every 5 years and the resources necessary to meet this requirement.

4.1 Future reviews of the IGAB

The IGAB contains specific clauses about how and when it should be reviewed.

Clauses 53 and 54 of the IGAB state

'53. The Parties must, within five (5) years from commencement, and every 5 years afterwards (or earlier if considered necessary by the Parties), initiate an independent review of the implementation and effectiveness of this Agreement, with input sought from a range of participants in the national biosecurity system, including governments, industries and community members.'

'54. A report must be prepared and presented to the Responsible Ministers and include findings on the implementation and effectiveness of this Agreement and recommendations for amendment. The report will be made public following provision to first ministers, Responsible Ministers and supporting ministers.'

There were limited submissions received which proposed amendments to the IGAB itself. Many of the suggestions were minor and considered unnecessary, or related to the implementation of the IGAB, suggesting to the independent reviewer that the IGAB is functioning as intended. It is the implementation, public reporting and biosecurity funding and spending that requires evaluation.

Having been responsible for this most recent review, the independent reviewer considers it prudent for government to consider potential efficiencies for future reviews of the IGAB.

Future reviews of the IGAB could be undertaken in a 'desktop' manner and be conducted by a specifically formed group of biosecurity staff from across the Commonwealth and state and territory jurisdictions. Such a group could work together to undertake a public consultation process and subsequently determine whether the IGAB remains valid, operational and effective.

While outside the scope of this review, the independent reviewer considers the resources normally committed to the regular review of the IGAB, could be committed elsewhere such as:

- reviewing the implementation of the IGAB
- reviewing the implementation of current cost sharing and funding arrangements for the national biosecurity system
- reviewing the functioning of emergency deeds and considering ways to improve them.

The independent reviewer considers that the costs and resources incurred through appointing a reviewer and establishing and maintaining a support team could be redirected to other biosecurity related activities.

The independent reviewer stands by the importance and value of the IGAB and the need for its regular review. However, based on the recent consultation, a more administrative approach should suffice.

Recommendation 7

That agriculture ministers consider a collaborative, yet simpler approach to future reviews of the Intergovernmental Agreement on Biosecurity (IGAB), to be conducted by a team of skilled individuals across state, territory and Commonwealth Departments of Agriculture to allow resources to be redirected to ensuring effective implementation of the IGAB.

Appendix A: Terms of reference for the review

Preamble

The 2019 Intergovernmental Agreement on Biosecurity (IGAB) is an agreement between the Commonwealth of Australia, and state and territory governments to strengthen the biosecurity system. The agreement recognises that biosecurity is a shared responsibility between all governments, industry, natural resource managers, custodians or users, and aims to strengthen these partnerships.

The IGAB establishes nationally agreed approaches to prevent, prepare for, detect and mitigate biosecurity risks, and respond to, manage and recover from biosecurity incidents should they occur. The review will examine the principles, goals and objectives, components and governance arrangements and responsibilities of the intergovernmental agreement and consider whether there are further opportunities to improve the operation of the agreement.

This review will report to Commonwealth, state and territory ministers responsible for biosecurity matters on findings and any recommendations for improvement. The review will determine where adjustments to the IGAB are needed to ensure that the biosecurity system operates effectively, efficiently and with sufficient responsiveness and continues to support market access for Australian products, to minimise primary production costs and to support a healthy economy, environment and community.

Scope

The IGAB review will consider and provide recommendations on:

- the implementation and effectiveness of each section of the current agreement, in particular examining whether any clauses in the Agreement inhibit any activity required to prevent, prepare for, detect and mitigate biosecurity risks, and respond to, manage and recover from biosecurity incidents should they occur, or whether any additional elements are required to prevent, prepare for, detect and mitigate biosecurity risks, and respond to, manage and recover from biosecurity incidents should they occur
- existing cost sharing arrangements and the potential for implementation of new funding arrangements for cross-jurisdictional biosecurity activities
- the impacts of Covid on the functioning of the IGAB and if any consequential amendments may be required
- not duplicate efforts from previous and ongoing reviews and assessments of the biosecurity system noting that consideration and implementation of some of the recommendations from these may still be underway.

The review will be led by an independent reviewer and supported by a secretariat team established within the Australian Government Department of Agriculture, Fisheries and Forestry. The National

Biosecurity Committee (NBC) will be the primary steering committee for the review and decisions will be made by the Agriculture Ministers Meeting (AMM) via consideration by Agriculture Senior Officials Committee (AGSOC) members. The independent reviewer will provide a final report, including recommendations, to Ministers, within 8 months of appointment.

Consultation

As required under IGAB Clause 53, during the review process input will be sought from a range of participants in the national biosecurity system. Consultation will extend to governments, industries (including agricultural and environmental), and community members.

Background

The inaugural IGAB between the Commonwealth and all state and territory governments (except Tasmania) commenced in 2012. In 2015, responsible ministers agreed to initiate a review of the national biosecurity system and its underpinning IGAB. This review, completed in 2017, made 42 recommendations aimed at strengthening Australia's biosecurity system over the following 5 to 10 years, and resulted in the second IGAB being endorsed by First Ministers in 2019.

In the second (current) IGAB, clause 53 requires that Parties must, within 5 years from commencement, and every 5 years afterwards (or earlier if considered necessary) initiate an independent review of the implementation and effectiveness of the IGAB. To fulfil this requirement, the review needs to be initiated before 3 January 2024.

In March 2023, the NBC agreed to the approach for the proposed IGAB review that avoided duplicating or adding unnecessarily to the existing national reform agenda.

Appendix B: List of submissions

Dr Allan received 30 submissions to the discussion paper. Twenty four submissions provided the necessary permissions to be published and have been made available on [DAFF's Have your say webpage](#). Six submitters categorised their submissions as confidential or indicated they were not for publication, and these have not been published. Some submitters indicated they wanted their submissions to be de-identified and these submissions are labelled as 'Anonymous'.

Table B1 List of submissions

Submission number	Respondent name
#30	Arid Lands Environment Centre
#29	Private and confidential
#28	Melons Australia
#27	Australian Livestock Exporters' Council
#26	The Queensland Department of Agriculture and Fisheries
#25	Private and confidential
#24	Commonwealth Department of Agriculture, Fisheries and Forestry
#23	Plant Health Australia
#22	Private and confidential
#21	Queensland Farmers' Federation
#20	National Farmers' Federation
#19	Cattle Australia
#18	Australian Research Data Commons
#17	Plant Industry Forum
#16	Fisheries Research and Development Corporation
#15	Rupert Woods Wildlife Health Australia
#14	Grain Producers Australia
#13	Sheep Producers Australia
#12	Australian Grape and Wine
#11	Australian Barramundi Farmers Association
#10	Victorian Chicken Growers Council
#9	Anonymous
#8	GrainGrowers
#7	Animal Health Australia
#6	Private and confidential
#5	Private and confidential
#4	Seafood Industry Australia
#3	Private and confidential
#2	Anonymous
#1	Cotton Australia

Appendix C: Stakeholder meeting list

Table C1 Stakeholder meetings

Meeting Date	Organisation	Title
18 July 2024	National Biosecurity Committee	-
30 July 2024	Western Australian NBC member	Assistant Director Biosecurity, WA Department of Primary Industries & Regional Development
30 July 2024	New South Wales NBC member	Director Food Safety, NSW DPIRD
31 July 2024	Queensland NBC member	Deputy Director General & Chief Biosecurity Officer, Department of Primary Industries Manager, Strategy and Legislation Director, Strategy and Legislation
31 July 2024	South Australian NBC member	Chief Executive of Department of Primary Industries and Regions
31 July 2024	Tasmanian NBC member	General Manager Biosecurity Tasmania
1 August 2024	Australian Capital Territory NBC member	Senior Director, Resilient Landscapes, Environment Planning and Sustainable Development Directorate Chief Animal Health Officer
1 August 2024	Commonwealth NBC member	DAFF, First Assistant Secretary, Biosecurity Strategy and Reform Division
1 August 2024	Northern Territory NBC member	Executive Director, Biosecurity and Animal Welfare at Department of Industry, Tourism and Trade Chief Veterinary Officer Chief Plant Health Officer
5 August 2024	Victorian NBC member	Agriculture Victoria Executive Director Deputy Director Invasive Species Science, Victorian Department of Environment, Energy & Climate Action
6 August 2024	DAFF	Director, National Response Policy
20 August 2024	DAFF	Assistant Secretary, Biosecurity Sustainable Funding Branch Director, Biosecurity Strategy Unit Assistant Director, Biosecurity Strategy Unit
9 September 2024	DAFF	Deputy Secretary, Biosecurity, Operations and Compliance Group
10 September 2024	DAFF	Secretary
10 September 2024	DAFF	Australian Chief Veterinary Officer
10 September 2024	DAFF	Australian Chief Environmental Biosecurity Officer
10 September 2024	DAFF	Australian Chief Plant Protection Officer
18 September 2024	National Biosecurity Committee	-
20 September 2024	The COVID-19 Response Inquiry	Independent Panel Chair
25 September 2024	Western Australian Department of Primary Industries & Regional Development	Director General Deputy Director General
27 September 2024	Queensland Department of Primary Industries	Director General Deputy Director General & Chief Biosecurity Officer

Meeting Date	Organisation	Title
22 October 2024	New Zealand NBC member	Chief Biosecurity Officer, New Zealand Ministry of Primary Industries
22 October 2024	N/A	Previous IGAB reviewer
22 October 2024	Department of Natural Resources & Environment, Tasmania	Secretary
23 October 2024	Australian Pesticides & Veterinary Medicines Authority	Chief Executive Officer
1 November 2024	Agriculture Ministers' Meeting	-
4 November 2024	Cattle Australia	Chief Executive Officer Biosecurity Policy Manager
4 November 2024	Plant Health Australia	Chief Executive Officer General Manager, Partnerships & Innovation National Manager, Partnerships
7 November 2024	Invasive Species Council	Conservation and Biosecurity Analyst Principal Policy Analyst
7 November 2024	Horticulture Innovation Australia	Chief Executive Officer
7 November 2024	Fisheries Research & Development Corporation	General Manager Research Portfolio Manager
14 November 2024	Animal Health Australia	Chief Executive Officer
14 November 2024	National Farmers' Federation	Farming Systems Committee
5 December 2024	DAFF	Assistant Secretary, First Nations Branch
7 January 2025	DAFF	Deputy Secretary, Biosecurity, Operations and Compliance Group

Appendix D: List of recommendations

- **Recommendation 1** – That the Intergovernmental Agreement on Biosecurity be amended to specifically mention inclusion of First Nations peoples to foster a truly collaborative biosecurity system.
- **Recommendation 2** – That the National Biosecurity Committee (NBC) considers ways to meaningfully collaborate with First Nations people’s knowledge and wisdom through consultative mechanisms, such as including First Nations people in established advisory groups to the NBC for biosecurity surveillance, planning and responses.
- **Recommendation 3** – That the National Biosecurity Committee consider the most appropriate mechanism for inclusion of Research and Development Corporations’ biosecurity research projects, and their outcomes, in the committee’s strategic view of the national biosecurity system.
- **Recommendation 4** – That agriculture ministers require the National Biosecurity Committee to meet their reporting obligations under the Intergovernmental Agreement on Biosecurity, including submitting the annual work plan and making and reporting progress against that work plan, and publicly reporting its findings.
- **Recommendation 5** – That the National Biosecurity Committee undertakes a review of its structure, membership and terms of reference (including that of its subcommittees) to ensure it has a strong foundation to continue to effectively provide strategic leadership in managing national approaches to emerging and ongoing biosecurity policy issues.
- **Recommendation 6** – That agriculture ministers and agriculture senior officials consider delaying any potential future reviews of biosecurity cost sharing and funding until such time as recommendations from previous reviews, and work scheduled in the National Biosecurity Strategy Action Plan ‘Sustainable Investment’ priority are finalised and implemented or closed. Ministers and Agriculture Senior Officials should also ensure that this work is appropriately prioritised and resourced.
- **Recommendation 7** – That agriculture ministers consider a collaborative, yet simpler approach to future reviews of the Intergovernmental Agreement on Biosecurity (IGAB), to be conducted by a team of skilled individuals across state, territory and Commonwealth Departments of Agriculture to allow resources to be redirected to ensuring effective implementation of the IGAB.

Appendix E: List of additional findings and future considerations

Throughout the review, the independent reviewer heard and received feedback on matters outside the scope of this review. The independent reviewer also came across matters of interest that while not substantial enough to warrant a formal recommendation, were interesting enough to suggest that government explores them further in the future.

These matters are presented in Table E1 as findings and suggested future considerations.

Table E1 Additional findings and future considerations

Topic	Finding	Future consideration	Report section
Language of the IGAB	Some submissions to the IGAB discussion paper, contained suggested wording amendments such as inclusion of the following words or phrases, 'wildlife', 'animal welfare' and 'environmental/agricultural terrorism'.	Government could consider incorporating these proposed amendments into supporting documentation such as communiques, and/or public websites, rather than in the IGAB itself, if not already covered.	1.1
Stability of the NBC	Numerous changes have occurred in recent years to incumbents of NBC positions, and a shift in the knowledge, experience and skillsets now held by the committee.	Government could consider how stability can be improved for the NBC.	1.4
NBC skillsets	Given the breadth of responsibility assigned to the NBC, queries arose on whether a biosecurity background is the main skillset required for a NBC member, or whether a mix of biosecurity, strategy and finance would make for a more rounded committee structure.	Government could consider these skills in any future reviews of the NBC structure and governance.	1.4
NBC governance	The IGAB provides the NBC with the impetus to function in a strategic manner and have oversight of the system.	Government could consider using the IGAB as the basis for its planning and to facilitate strategic discussion on the ability of the NBC to meet their obligations in the IGAB.	1.4
Industry involvement	Industry wants more involvement in biosecurity decision-making, and they report a lack of communication from the NBC on how and why biosecurity decisions are made.	Government could consider how industry and government can be better brought together for the benefit of a transparent and truly national biosecurity system.	1.4, 1.6
Biosecurity education resources	Numerous resources exist to educate Australians on their roles and responsibilities in maintaining Australia's biosecurity status.	Government could consider promoting such resources to increase the likelihood of preventing pests, diseases and weeds entering or spreading in/or through our country.	1.5
Shared responsibility	There is a need for effective and concise advice about the roles and responsibilities of all Australians in maintaining our biosecurity status.	Government could consider improved communications on the roles and responsibilities of all Australians in maintaining our biosecurity status. The	1.5

Topic	Finding	Future consideration	Report section
		meaning behind 'shared responsibility' could be more widely communicated.	
Past reviews	There is little clarity on the current status of recommendations from the 2017 'Priorities for Australia's biosecurity system' review chaired by Dr Wendy Craik.	Governments could consider publishing any outcomes of its response to, and implementation of, the Craik review.	1.8, 2.2, 2.6
Consistent approach to biosecurity	Some jurisdictions have lower financial contributions and more incursions or have increased biosecurity resources and a lower level of incursions and responses.	Government could consider how the jurisdictions can be supported in attaining a consistent approach to biosecurity.	1.6
Information sharing	The effectiveness of the IGAB would increase through improved implementation of information sharing agreements.	Governments could consider ways to leverage existing data sharing mechanisms, thereby improving the effectiveness of the biosecurity system.	1.8
Revision of cost sharing mechanisms	Widespread industry and stakeholder feedback suggested that cost-sharing arrangements should be broader and extend to response approaches beyond eradication.	Government could consider mechanisms for other forms of cost sharing, such as for preparedness, surveillance and containment, as well as for environmental biosecurity.	2.3, 2.4, 2.5
National alignment of resources	There is a natural misalignment in the way biosecurity threats reach our shoreline and then spread. Northern Australia is at the greatest risk from emerging biosecurity incursions through natural migratory pathways, but southern Australia has greater capacity to deal with them, through connectivity to a greater pool of resources.	Government could consider adopting a methodology to equalise biosecurity investiture, based on the natural biosecurity risk pathways of each Australian state and territory.	2.4
National coordination point for research funding	There is no overarching coordination or prioritisation of biosecurity-related research, and not all members of the biosecurity community are aware of the projects being conducted nor their results.	There is benefit in considering a national overarching coordination point to maximise the use of biosecurity funding for research, to avoid duplication and increase the visibility of projects and results.	2.4, 2.5
Government Industry Agreement (GIA) New Zealand	New Zealand has one cost sharing biosecurity deed, which covers animals, plants and three aquatic industries. The GIA is not limited to eradication responses, it covers containment, surveillance, prevention and monitoring of biosecurity incursions.	Government could consider the efficiencies of having a single broadened deed, and further consider whether there is benefit in adopting that approach for Australia.	2.5
One Health	The One Health approach could be more prominent in our biosecurity system.	Government could consider the appropriateness of an increased focus on referencing the One Health approach.	3.1
Zoonotic diseases	Extensive commentary was received by stakeholders on the apparent disconnect between human, animal, plant and ecosystem health in relation to zoonotic diseases.	Government to communicate widely the measures they have in place to share information and collaborate in monitoring and managing zoonotic infections.	
Extension of Memorandum of Understanding (MOU)	The MOU signed in 2017 between DAFF, and the Department of Health (Now Health and Aged Care) establishes the framework for implementing the joint responsibility for biosecurity, imported food and development of food standards, disease management, regulation of	Government could consider how an incorporated approach to future pandemic management on concurrent biosecurity emergency responses might occur.	3.3

Topic	Finding	Future consideration	Report section
	genetically modified organisms, management of antimicrobial resistance and pesticides and veterinary medicines (DAFF 2021).		
Emergency management procedures	A more holistic approach when making decisions about future pandemics is needed to consider the broader health, economic, social, education and human rights impacts including on concurrently occurring biosecurity activities.	Governments strongly consider implementing Recommendation 24 of the COVID-19 Response Inquiry Report.	3.4

Glossary

Term	Definition
Appropriate Level of Protection (ALOP)	The level of protection deemed appropriate by a country establishing a sanitary or phytosanitary measure to protect human, animal or plant life or health within its territory (WTO 1995).
ALOP for Australia	The ALOP for Australia is a high level of sanitary and phytosanitary protection aimed at managing and reducing biosecurity risks to a very low level, but not to zero.
Biosecurity	Biosecurity is the management of risks to the economy, the environment and the community, of pests and diseases entering, emerging, establishing or spreading.
Biosecurity emergency	Circumstances in which a pest or disease poses a significant and immediate threat to part or parts of Australia's economy, environment or community.
Biosecurity risks	The prevention of the entry, establishment or spread of unwanted pests and infectious disease agents to protect human, animal or plant health or life, and the environment.
Biosecurity system	Australia's national biosecurity system encompasses and fully integrates import and export activities, services and functions into, within, and from Australia and covers the spectrum of pest and disease threats to Australia's environment, production and people.
Craik Review	The review undertaken by a panel chaired by Dr Wendy Craik looked at the operation of the national biosecurity system as underpinned by the original 2012 Intergovernmental Agreement on Biosecurity (IGAB).
Cost effective	The delivery of optimal outcomes or benefits at the lowest possible cost. A measure of how well resources are aligned to the result achieved.
Consensus	In respect of a decision, means that all of the parties present, and not abstaining when an issue is considered, support the decision.
Disease	The presence of a pathogenic agent in a host and/or the clinical manifestation of infection that has had an impact (that is, significant negative consequences) or poses a likely threat of an impact. It includes microorganisms, disease agents, infectious agents and parasites (IGAB 2019).
Ecosystem health	The condition of an ecosystem, whether natural, managed, or human-dominated, that is free from influences that would damage or destroy its characteristic structures and functions. (Encyclopedia of Biodiversity, 2013). The term is used sometimes to mean the links between ecosystems and human health.
Efficient	Achieving optimum outcomes with minimum wasted expense or effort.
Effective	Successfully producing a desired or intended result.
Effective biosecurity system	A system that is agile, prepared and responsive in protecting Australia's biosecurity status, where all Australians commit to sharing responsibility, actively contributing, collaborating and sharing information.
Effective board	A board that is thoughtful, disciplined and professional in its approach; utilises careful forward planning, efficient operation of board meetings, regular performance assessments and effective chair arrangements.
Emergency response	The actions taken in anticipation of, during and immediately after, an outbreak to ensure that its impacts are minimised and may include actions constituting an initial response to and outbreak, and actions that form part of a national biosecurity incident response.
Environmental biosecurity	<p>The protection of the environment and/or social amenity from the risks and negative effects of pests and diseases entering, emerging, establishing or spreading in Australia.</p> <ul style="list-style-type: none"> • Environment includes Australia's natural terrestrial, inland water and marine ecosystems and their constituent parts, and its natural and physical resources. • Social amenity includes the social, economic and cultural aspects of the environment, including tourism, human infrastructure, cultural assets and national image.

Term	Definition
Established pests and diseases	Perpetuation, for the foreseeable future, of a pest within an area after entry (FAO 2024).
Exotic pests and diseases	Pests and diseases affecting plants or animals (and possibly including humans) that do not normally occur in a particular country (IGAB 2019).
Incursion	An isolated population of a pest or disease recently detected in an area, not known to be established, but expected to survive for the immediate future (Source: adapted from FAO 2024).
Intergovernmental Agreement on Biosecurity (IGAB)	An agreement between the Commonwealth and state and territory governments. The agreement aims to strengthen the working partnerships between governments, improve the national biosecurity system and minimise the impact of pests and diseases on Australia's economy, environment and the community.
Nationally significant pests and diseases	Indicates that the pest or disease would likely have far reaching and/or national impacts.
Pest	Any species, strain or biotype of the Kingdoms Animalia (excluding human beings), Plantae, Fungi, Monera or Protista that has had an impact (that is, a significant negative consequences), or poses a likely threat to having an impact (IGAB 2019).
Risk analysis	Assessment of the level of biosecurity risk associated with the entry, emergence, establishment and spread of pests and diseases and the identification of options to limit the level of biosecurity risk. Includes risk assessment, risk management and risk communication.
Risk appetite	The amount and type of risk that an organisation is prepared to pursue, retain or take. This concept helps guide an organisation's approach to risk and risk management (ISO 31 000 risk management standard).
Risk assessment	The evaluation of the likelihood and the biological, environmental, social and economic consequences of entry, establishment, or spread of a pest or disease within the territory of a country.
Risk based	The proper assessment of risk and subsequent determination of a proportionate response.
Science-based	The making of a decision that takes scientific methods and/or results into account.
Shared responsibility	A core concept underpinning Australia's national biosecurity system whereby all stakeholders including Australian governments, industry and the broader community have important roles and responsibilities in the management of biosecurity risks in Australia.
Surveillance	An official process which collects and records data on pest presence or absence by survey, monitoring or other procedures (FAO 2024).
Zoonoses	Diseases and infections that are naturally transmitted between vertebrate animals and humans (including via vectors). A zoonotic agent may be a bacterium, a virus, a fungus or other communicable disease agent.

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