# National Biosecurity Strategy Action Plan 2024: Connected, Resilient, Shared



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**Acknowledgement of Country**

We acknowledge the Traditional Custodians of Australia and their continuing connection to land and sea, waters, environment and community. We pay our respects to the Traditional Custodians of the lands we live and work on, their culture, and their Elders past and present.

## Foreword

We are pleased to present Australia’s first National Biosecurity Strategy Action Plan. The action plan solidifies our unified commitment to a holistic, collaborative, and strategic approach to strengthening Australia’s vital biosecurity system.

Australians all benefit from our strong biosecurity. It is key to support our productive agricultural, fisheries and forestry sectors and the vision to achieve growth towards a $100 billion industry by 2030. A strong biosecurity system underpins our global two-way trade and is essential to protecting our unique natural environment and the way of life all Australians enjoy.

From safeguarding our health and preserving our food supply chains, to protecting the culture and values of First Nations people and our wider community. We all have a role to play.

This action plan reflects the collaboration of stakeholders from across our biosecurity system by:

* building on the significant investments already made by government, industry and stakeholders across biosecurity
* strengthening governance, transparency and accountability to support improved biosecurity decision-making, particularly for future investments and surveillance
* unifying the approach to priority setting,
* supporting the National Biosecurity Strategy vision for a connected, resilient and shared national biosecurity system for all Australians.

We thank the organisations, community groups, and individuals who contributed to the development of this action plan. The ongoing engagement from Australian, state and territory governments, First Nations people, landowners and managers, industry, environmental groups, research organisations and the community is valued, and has shaped our approach to delivering the National Biosecurity Strategy actions.

We look forward to continuing this critical work together – across governments, industry, and the diverse range of biosecurity stakeholders, communities, and individuals – to successfully achieve the National Biosecurity Strategy’s vision for a biosecurity system that protects Australia and our way of life. A system that is connected, resilient and shared.

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Minister for Agriculture, Fisheries and Forestry

**New South Wales**

The Hon Tara Moriarty MLC

Minister for Agriculture

**Victoria**

The Hon Ros Spence MP

Minister for Agriculture

**Queensland**

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**South Australia**

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Minister for Primary Industries and Regional Development

Minister for Forest Industries

**Western Australia**

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**Northern Territory**

The Hon Gerard Maley MLA

Minister for Agriculture and Fisheries

**Australian Capital Territory**

The Hon Suzanne Orr MLA

Minister for Climate Change, Environment, Energy and Water

National Biosecurity Strategy Implementation Committee

* Australasian Meat Industry Employees Union
* Australian Food and Grocery Council
* Cattle Australia
* Commonwealth Department of Agriculture, Fisheries and Forestry
* Freight and Trade Alliance
* Grain Producers Australia
* Grains Research and Development Corporation
* Invasive Species Council
* National Farmers’ Federation
* North Australian Indigenous Land and Sea Management Alliance
* NRM Regions Australia
* South Australia Department of Primary Industries and Regions (Chair)
* Victoria Department of Energy, Environment and Climate Action
* Western Australia Department of Primary Industries and Regional Development

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## Introduction

The National Biosecurity Strategy (NBS) provides a 10-year roadmap for Australia’s biosecurity system. A national approach is critical in developing a shared purpose to ensure Australia’s biosecurity system remains strong in a constantly changing and increasingly complex global environment. The NBS provides a collective vision which will continue to guide nationwide activities, planning, and investment priorities with a strategic, coordinated approach.

Australia’s first National Biosecurity Strategy Action Plan outlines the activities that will be delivered between 2024 and 2026, to implement the NBS. This includes the 36 initial actions identified under the NBS (see [Appendix A](#_Appendix_A:_NBS)). The action plan covers activities across the entire system of biosecurity, including terrestrial and aquatic, plant, animal and the environment, Commonwealth, state and territory and local levels.

This action plan is a key part of enacting the NBS and should be read in conjunction with the NBS and the [National Biosecurity Strategy Implementation Plan](https://www.biosecurity.gov.au/about/national-biosecurity-committee/nbs). These are shared documents, developed and delivered by biosecurity stakeholders working together. As part of our commitment to fostering a more inclusive biosecurity system, we are dedicated to aligning our efforts with the National Agreement on Closing the Gap, particularly Priority Reform 3, which focuses on transforming government organisations to better serve and respond to the needs of First Nations communities.

Recognising effective biosecurity is a collective responsibility, all Australians and sectors play a vital role. This includes many non-government organisations who lead and contribute to pest and disease responses in partnership with agricultural industry, research, governments, and associated industries. Through this collaborative approach, Australia will achieve a more connected, resilient and shared national biosecurity system that is up to the task of countering the threats facing our nation.

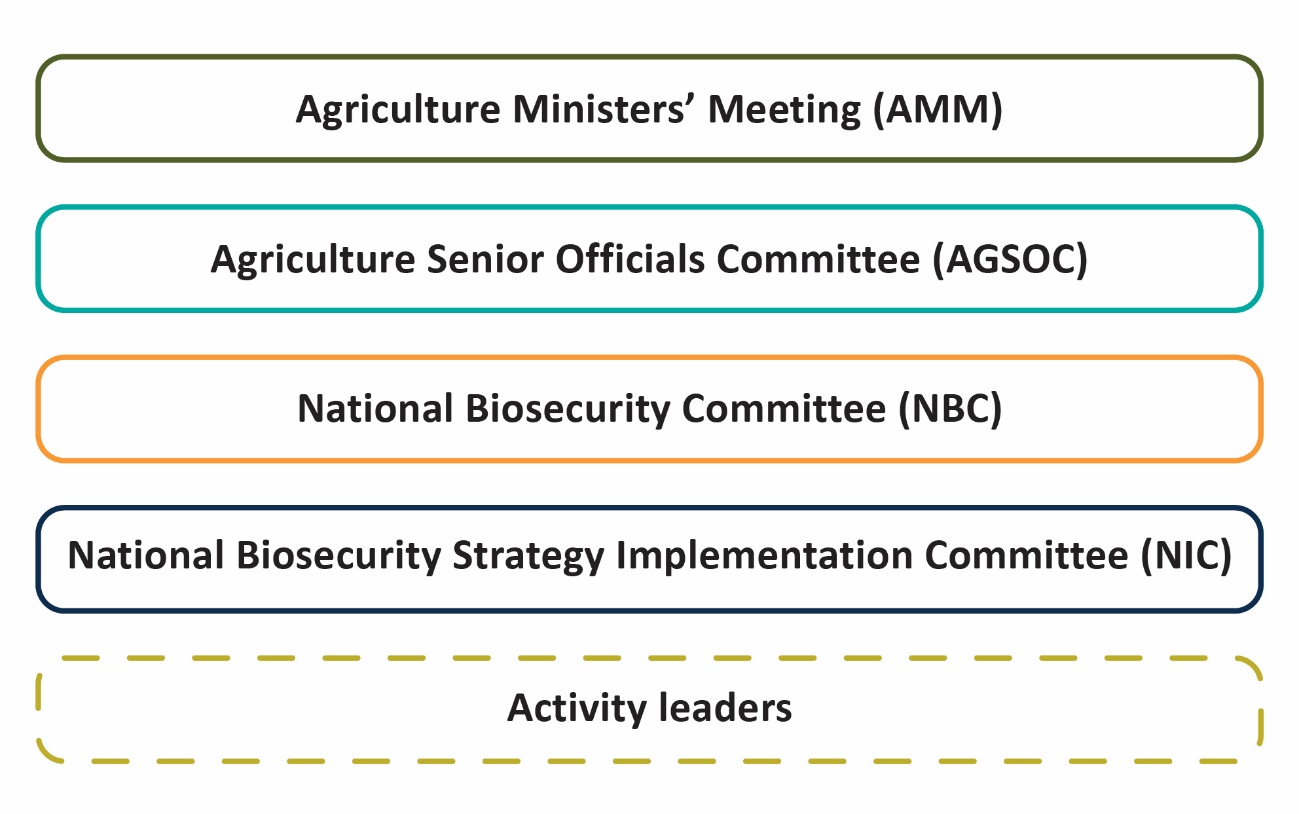
Throughout the NBS’s 10-year program of work, continuous improvement will be a guiding principle to achieving the NBS vision. As a shared initiative, action plan activities will be undertaken collaboratively, including ongoing monitoring, evaluation, and improvements in response to changes in the biosecurity operating environment and biosecurity priorities. This action plan is the first of several to be completed under the NBS.

This action plan was developed through valuable contributions from the NBS Implementation Committee (NIC) and its working group members. This action plan acknowledges the considerable work already taking place across the biosecurity system and builds on these commitments and investments in supporting shared delivery of the NBS’s vision to 2032 and beyond.

## Governance

This action plan is a shared initiative, and implementation of activities under the action plan will be undertaken collaboratively. Figure 1 shows NBS governance.

Figure 1 National Biosecurity Strategy implementation governance structure



The National Biosecurity Committee will oversee the implementation of the National Biosecurity Strategy (NBS) and advise the Agriculture Senior Officials’ Committee (AGSOC) and Agriculture Ministers’ Meeting (AMM) on biosecurity matters.

AGSOC provides cross-jurisdictional cooperative and coordinated approaches to matters of national interest and supports the AMM. The AMM provides national leadership to support NBS implementation.

The NIC oversees the delivery of the NBS and works collaboratively with the National Biosecurity Committee (NBC). The NIC comprises representatives from a cross-section of biosecurity stakeholders, including Australian, state and territory governments, plant, animal, food and grocery industries, unions, agricultural and environmental peak bodies, First Nations people, research organisations, and the logistics and supply chain sector.

The governance framework supporting the implementation of the NBS is committed to upholding Indigenous Data Sovereignty principles. This commitment is guided by the Framework for the Governance of Indigenous Data, as outlined by the National Indigenous Australians Agency (NIAA).

### Activity leaders

In this action plan, activity leaders are responsible for the delivery of the activities, including how activities will be funded, designed and implemented. Activity leaders are also responsible for coordinating stakeholder communication and engagement, and status reporting, as required.

### Reporting

The NIC is responsible for developing and delivering an annual report on the implementation of the action plan to the NBC. This annual report will be made publicly available and will inform the development of future action plans and strategy reviews.

In addition to the annual report from the NIC to the NBC, activity leaders will be responsible for reporting to the NIC, as requested. In developing their status report, activity leaders are expected to liaise with collaborators and to present a coordinated update of progress, achievements, risks and issues.

## NBS priority areas for action

To achieve the NBS vision, 6 priority areas for action were identified in the NBS, with 36 initial actions to support the evolution of the national biosecurity system.

Activities have been developed to form the basis of this action plan that build on the initial 36 actions for each NBS priority area.

A key focus within these activities is the commitment to protecting Indigenous Cultural and Intellectual Property (ICIP). This reflects progress on Priority Reform One (Formal Partnerships and Shared Decision Making), Priority Reform Three (Transforming Government Organisations), and Priority Reform Four (Shared Access to Data and Information) under the National Agreement on Closing the Gap. It also aligns with United Nations Declaration on the Rights of Indigenous People (UNDRIP), specifically Article 31 on self-determination in relation to ICIP, and Article 10 on obtaining Free, Prior, and Informed Consent (FPIC) in a culturally safe manner, Additionally, it supports the principles of the World Intellectual Property Organization (WIPO) Treaty on Genetic Resources, Intellectual Property, and Associated Traditional Knowledges. By embedding these principles, we ensure Indigenous rights are respected in all biosecurity activities.

The NBC and the NIC have agreed that activities in the action plan must be achievable and recognise the significant activities already underway across the national biosecurity system.

Given this is the first action plan, the activities are foundational and are a starting point. Possible activities for consideration under this and future action plans are listed in [Appendix B](#_Appendix_B:_Activities).

### NBS priority area 1: Shared biosecurity culture

We will enhance our culture of biosecurity action so that everyone understands the importance of biosecurity and plays their part.

A shared biosecurity culture aims to ensure everyone understands the importance of biosecurity and plays their part. By delivering against this priority, Australians will gain a better understanding of what biosecurity is and feel empowered to act in support of the system.

A culture of action will be created where the community cares about, contributes to, and takes responsibility for Australia’s biosecurity. This includes a shared understanding and appreciation of the benefits that effective biosecurity brings and of the potential consequences of system failure.

Table 1 Activities for NBS priority area 1

| Initial actions | Action plan activities | Activity leaders | Due |
| --- | --- | --- | --- |
| IA1.1 Build on and develop national awareness and education programs. | Promote the annual Australian Biosecurity Awards leveraging off stronger partnerships to drive positive biosecurity engagement and spotlight productive initiatives. | Commonwealth | Dec 2024 |
| Use national biosecurity campaigns to support national biosecurity stakeholders to raise awareness of priority biosecurity risks and mitigations. | Commonwealth | Mar 2025 |
| Promote the annual National Biosecurity Forum and Biosecurity Week activities as a vehicle for the dissemination of best practice and focussed attention on innovative and coordinated solutions. | Commonwealth | Dec 2025 |
| IA1.2 Drive positive biosecurity behaviours and incentivise compliance. | Promote and expand the Highly Compliant Importer Scheme. | Commonwealth | Dec 2026 |
| IA1.3 Revitalise national communication, engagement and reporting mechanisms. | Review and augment the National Biosecurity Communication Strategy to enhance national communication and engagement and increase real time communication and engagement with stakeholders. | National Biosecurity Communication and Engagement Network (NBCEN), and Commonwealth | Dec 2025 |
| IA1.4 Determine opportunities to embed biosecurity as a consideration into broader decision-making, risk, and business planning. | Develop and deliver a Biosecurity Business Network program. | Commonwealth and Tasmania with input from relevant stakeholders | Mar 2025 |

### NBS priority area 2: Stronger partnerships

We will strengthen and expand partnerships and networks between all stakeholders at local, regional, national, and international levels.

The stronger partnerships priority aims to strengthen and expand partnerships and networks between all stakeholders at local, regional, national, and international levels. This will leverage different perspectives, expertise, resources, and knowledge for greater impact to support better biosecurity outcomes.

Mutual trust, formal recognition, transparency, and a clear understanding of the benefits of effective biosecurity and the importance of everyone’s role underpinning these partnerships will create the shared responsibility for achieving strong biosecurity outcomes for Australia.

Table 2 Activities for NBS priority area 2

| Initial actions | Action plan activities | Activity leaders | Due |
| --- | --- | --- | --- |
| IA2.1 Enhance partnerships and engagement with Indigenous Australians. | Continued commitment to the Northern Australian Indigenous Biosecurity Ranger Forum to support biosecurity surveillance and capability building initiatives. | Commonwealth | Aug 2025 |
| Hold an Indigenous Ranger Roundtable for partnering Indigenous ranger groups within the Indigenous Ranger Biosecurity program to provide strategic input and feedback to shape the future direction of the program and improve biosecurity surveillance and build capability. | Commonwealth | Aug 2026 |
| Continued commitment to the Indigenous Ranger Biosecurity Program to support biosecurity surveillance and capability building initiatives. | Commonwealth | Dec 2026 |
| IA2.2 Collaboratively review and refine roles and responsibilities. | Review national biosecurity governance arrangements, identifying where roles and responsibilities could be refined to strengthen positive impact, and where real-time consultation can be increased. | Queensland with input from relevant stakeholders | Jun 2025 |
| IA2.3 Review governance arrangements to ensure they include relevant stakeholders. | Review of national biosecurity governance arrangements, identifying current stakeholder involvement and where this could be expanded to strengthen positive impact. | Queensland with input from relevant stakeholders | Jun 2025 |
| IA2.4 Strengthen the involvement of environmental agencies and environmental and community groups. | Establish an annual National Environmental Biosecurity Roundtable to bring together key environmental agencies and community groups around priority themes. This may include consideration of a memorandum of understanding between environmental and biosecurity agencies. | Commonwealth | Jun 2025 |
| IA2.5 Identify and implement opportunities for greater industry and community involvement in decision-making bodies. | Review of national biosecurity decision-making bodies, identifying current industry and community involvement and where this could be expanded to strengthen positive impact. | Queensland with input from relevant stakeholders | Jun 2025 |
| IA2.6 Deepen international partnerships and capacity building. | Enhance near neighbour engagement including deploying a secondee to the FAO Sub-Regional Office for the Pacific Islands and delivering para-veterinary workforce training to Pacific Island nations and Timor-Leste. | Commonwealth | Jun 2025 |
| Enhance international collaboration through engagement with the Euphresco network to share libraries of reference spectra (fingerprints) and technical approaches for use of MALDI-ToF mass spectrometry to identify fungi, bacteria and, potentially, insects. | Commonwealth | Oct 2026 |
| In collaboration with the Pacific Island Countries and Territories, develop a Pacific Strategy for sea containers to minimise the spread of pest risk associated with sea container movements within the Pacific region. | Commonwealth | Oct 2026 |
| IA2.7 Strengthen understanding of antimicrobial and pesticide resistance and zoonotic pathways. | Implement measures 1.1, 1.2, 4.1 and 5.3.1 of Australia’s Animal Sector Antimicrobial Resistance Action Plan (AMR Action Plan) 2023 to 2028, as follows:   * Develop a business case to support sustainable funding for the AMR Action Plan (1.1). * Design ongoing risk-based surveillance for AMR in the animal sector (1.2). * Deliver antimicrobial prescribing guidelines for at least one additional livestock industry sector (4.1). * Deliver at least one AMR survey in partnership with livestock industries (5.3.1). | Commonwealth with input from relevant stakeholders | Dec 2026 |
| IA2.8 Coordinate our international advocacy efforts to help shape global standards, rules and conditions. | Produce a comprehensive forward work plan to document national efforts in biosecurity international engagement. | Commonwealth | Dec 2025 |
| Develop a National Biosecurity International Engagement Strategy to coordinate efforts and focus on highest priority opportunities. This will include the forward work plan. | Commonwealth | Oct 2026 |

### NBS priority area 3: Highly skilled workforce

We will develop and sustain a highly skilled workforce to ensure we have the right capability and capacity, in the right place, at the right time.

The highly skilled workforce priority will develop and sustain the pipeline of biosecurity skills needed for the future, within government, industry, and the community. The aim is to provide targeted capability and capacity building, education, and training to ensure people can be deployed when and where they are needed, and that they have the right skills.

Table 3 Activities for NBS priority area 3

| Initial actions | Action plan activities | Activity leaders | Due |
| --- | --- | --- | --- |
| IA3.1 Identify current and future skills needs in key areas. | Conduct and disseminate a national biosecurity skill needs analysis to identify current and emerging critical skills gap opportunities. | South Australia and New South Wales | Oct 2025 |
| IA3.2 Develop a national workforce strategy to build, retain and deploy capability. | Operationalise the skills needs analysis through a National Biosecurity Workforce Strategy that includes education pathways. | Commonwealth | Oct 2026 |
| IA3.3 Build upon and expand existing cooperative partnership arrangements. | Institute a specialist stream for biosecurity workforce in the National Biosecurity Forum to build on and expand existing cooperative and partnership arrangements. | Commonwealth | Dec 2025 |
| Expand and promote the National Online Biosecurity Training Hub. | Queensland | Dec 2025 |
| IA3.4 Strengthen professional development programs. | Broaden biosecurity training delivered through the Biosecurity Training Centre (Charles Sturt University) to cater to those working in industry and environmental biosecurity roles. | Commonwealth | Jul 2025 |
| Develop and deliver training in biosecurity response preparedness and capability to support those working in industry and environmental biosecurity roles. | Commonwealth with input from relevant stakeholders | Oct 2025 |

### NBS priority area 4: Coordinated preparedness and response

We will boost our system’s adaptability and its capacity to prevent, detect, manage, respond to and recover from outbreaks.

The coordinated preparedness and response priority aims to enhance preparedness and response capability through improved coordination, regional planning, increased collaboration and faster information and data sharing to support our system’s resilience and adaptability.

The need for nationally coordinated One Health approach and emphasis on improving surveillance systems and data sharing was highlighted in stakeholder workshops.

Table 4 Activities for NBS priority area 4

| Initial actions | Action plan activities | Activity leaders | Due |
| --- | --- | --- | --- |
| IA4.1 Undertake and promote regular national preparedness exercises. | Co-design a national preparedness exercise and commence workshops to agree on critical national practices. | Commonwealth with input from relevant stakeholders | Jun 2025 |
| IA4.2 Advance regionally based planning activities. | Agree to national biosecurity recovery principles. The recovery principles should align with contemporary recovery best practice in other hazards, be mainstreamed across the national biosecurity system and be effectively communicated. | Commonwealth and Western Australia | Aug 2025 |
| IA4.3 Continually review and update risk information to inform priorities. | Co-design a national horizon scanning and fore sighting framework. Using the framework, develop a horizon scanning and fore sighting document to test and validate that it produces meaningful insights which can be used to inform prioritisation decisions. | Queensland and Commonwealth with input from relevant stakeholders | Dec 2026 |
| IA4.4 Actively embed continuous learning. | See activities under initial actions IA 3.2 and IA3.3, which will provide a foundation for this action. Outcomes of these activities should be considered for extension in a future action plan to support IA4.4. | Commonwealth | Oct 2026 |
| Jurisdictions to consider the use of their existing Biosecurity Forums to support continuous learning. | States and territories | Oct 2026 |
| IA4.5 Strengthen traceability arrangements. | Strengthen national livestock traceability through the implementation of mandatory individual electronic identification (eID) for sheep and goats. | Commonwealth with input from states and territories and relevant stakeholders | Mar 2025 |
| Conduct an audit of the Australian Agricultural Traceability Alliance and Australian Agricultural Traceability Governance Group processes to identify opportunities for strengthening traceability arrangements. | Commonwealth with input from relevant stakeholders | Jan 2025 |
| Support the introduction and maintenance of a national horse traceability system in Australia underpinned by movement recording used in conjunction with state and territory Property Identification Code systems. | Victoria and Commonwealth with input from relevant stakeholders | Dec 2024 |
| Strengthen plant traceability through the establishment of nationally consistent arrangements to identify, locate and provide information about any property used for agricultural plant production. Overseen by the Plant Property Identification (PPID) Governance Committee. | Victoria, New South Wales and Commonwealth with input from relevant stakeholders | Dec 2026 |
| IA4.6 Enhance our national surveillance and early detection arrangements. | All jurisdictions and other stakeholders continue to invest in next generation surveillance platforms, including emerging artificial intelligence technologies, that could easily be adapted to surveillance and detection for example, the national grain initiative. Consideration will be given to ensuring the platforms meet international standards and trade requirements and end user needs will be considered in the design principles. A community of practice will support this work. | NSW and CSIRO | Dec 2026 |
| Advance region-based biosecurity preparedness planning. The Northern Australia Quarantine Strategy is implementing enhanced Emergency Animal Disease surveillance and preparedness activities in collaboration with the 3 Northern Australia jurisdictions and Northern Australia stakeholders. Results of this preliminary work will determine opportunities and next steps for other states. | Commonwealth, Queensland, Northern Territory and Western Australia | Jun 2025 |
| IA4.7 Evolve our national information management framework. | Review the existing national data-sharing system to identify next steps needed to deliver a coordinated and interoperable surveillance data-sharing system. This activity will take into consideration lessons learned from COVID-19 and be tested through national response exercises. | Commonwealth and Victoria | Oct 2026 |

### NBS priority area 5: Sustainable investment

We will ensure funding and investment is sufficient, co-funded, transparent, targeted to our priorities and sustainable for the long term.

The sustainable investment priority 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.

This priority area is recognised by stakeholders as important and underpinning of other priority areas. The challenge of sustainable funding and investment is not unique to biosecurity and there are calls for a national conversation. The NBS notes that we will ensure sustainable investment approaches are efficient, equitable, adaptable, transparent, and responsive to the changing risk environment.

Table 5 Activities for NBS priority area 5

| Initial actions | Action plan activities | Activity leaders | Due |
| --- | --- | --- | --- |
| IA5.1 Work together to identify funding needs and determine priorities. | Conduct a national biosecurity system sustainable funding review to identify funding needs and priorities and to inform additional funding resources and mechanisms, as needed. | Commonwealth with input from relevant stakeholders | Jun 2025 |
| IA5.2 Strengthen frameworks to agree and deliver priority investment. | Establish new national Biosecurity Capability and Investment Forum, with an initial focus on delivering a long-term investment plan. | NBS Implementation Committee | Mar 2025 |
| IA5.3 Advance co-funding and investment strategies with stakeholders. | Review of national surveillance, preparedness and response cost sharing arrangements and development of a national cost sharing options paper. | Commonwealth | Dec 2025 |
| IA5.4 Increase the transparency of biosecurity funding. | Develop new public reporting of national biosecurity system funding and expenditure including Commonwealth, states and territories and relevant industry bodies. | Commonwealth with input from relevant stakeholders | Oct 2025 |
| IA5.5 Complete the development of a system performance and evaluation framework. | Undertake analysis to evaluate the return on investment for biosecurity activities to inform future measures. | Commonwealth and Centre of Excellence for Biosecurity Risk Analysis | Oct 2026 |

### NBS Priority area 6: Integration supported by technology, research and data

We will create a more connected, efficient, and science-based system to facilitate timely, informed and risk-based decisions.

The integration supported by technology, research and data priority aims to create a more connected and efficient system to better leverage existing and new technology, research, and data to facilitate timely, informed and risk-based decisions.

Stakeholders identified the need for nationally coordinated approaches with an emphasis on improving surveillance systems, data sharing and sought improvements in decision-making and resource allocation.

Table 6 Activities for NBS priority area 6

| Initial actions | Action plan activities | Activity leaders | Due |
| --- | --- | --- | --- |
| IA6.1 Continue to invest in and roll out transformative technologies to digitise and automate processes. | Leverage the current activities and working groups of governments and industry to better coordinate, understand and promote national investment opportunities in biosecurity research, development, and extension, including automation and digitisation. | Commonwealth | Mar 2025 |
| IA6.2 Increase stakeholder coordination to prioritise, drive and deliver national research outcomes. | Coordinate and align national investments in biosecurity research, development and extension and incorporate into national governance frameworks where appropriate. | Commonwealth | Jan 2025 |
| IA6.3 Actively share data and research widely. | Agree on foundational dataset suitable to be shared by Commonwealth and jurisdictions on a bi-annual basis. This data will, in the first instance, be focussed on research and research findings and should build on data that is already available, where appropriate. | Commonwealth, states and territories | Oct 2026 |
| Complete viability assessment to determine if there is an existing data-sharing platform which is a suitable platform to share this information publicly (e.g. Biosecurity Commons). | Commonwealth | Dec 2025 |
| IA6.4 Enhance the accessibility and use of surveillance and interception data. | Develop a cross-jurisdiction data-sharing framework primarily focussed on sharing of surveillance and interception data between NBS signatories. | Commonwealth | Jun 2025 |
| Complete viability assessment to determine if there is an existing data-sharing platform which is a suitable platform to share this information publicly (e.g. AUSPest*Check*®, Biosecurity Commons). | Commonwealth | Dec 2025 |
| IA6.5 Further support innovations to build science and research capacity. | Implement a collaborative and nationally inclusive approach to fund innovation projects and ideas to strengthen our biosecurity system. Report regularly on innovation projects being delivered and share findings. | Commonwealth | Dec 2024 |
| IA6.6 Encourage the uptake of existing and emerging technologies, systems and processes across the biosecurity system. | Leverage the industry, community and government initiatives to support the uptake of emerging technologies, systems and processes. | Commonwealth | Dec 2024 |
| IA6.7 Increase the use of citizen science, Indigenous knowledge and on the ground insights. | Government, researchers, community, and other relevant entities to increase and promote citizen science initiatives and actively engage local government. This will broaden data collection and bring local expertise and experience to identifying change and anomalies in the landscape. | National Biosecurity Committee Environment and Invasive Committee | Jun 2025 |
| IA6.8 Encourage greater private sector investment in the development and delivery of biosecurity innovations. | Implement a new Australian Biosecurity Research Database to collate and promote biosecurity research and development investments. | Commonwealth | Mar 2025 |

## Monitoring and evaluation

Following endorsement of this plan, a monitoring and evaluation framework will be developed to support this action plan. The purpose of the monitoring and evaluation framework will be to ensure transparency into the implementation of the NBS. The framework will deliver a tangible record of what is achieved. The framework will guide collection of information on activity progress and impact towards the NBS vision.

## Appendix A: NBS priority areas and initial actions

Table A1 Priority areas and 36 initial actions outlined in the NBS

| Priority areas | Initial actions |
| --- | --- |
| Shared biosecurity culture | IA1.1: Build on and develop national awareness and education programs  IA1.2: Drive positive biosecurity behaviours and incentivise compliance  IA1.3: Revitalise national communication, engagement and reporting mechanisms  IA1.4: Determine opportunities to embed biosecurity as a consideration into broader decision-making, risk and business planning |
| Stronger partnerships | IA2.1: Enhance partnerships and engagement with Indigenous Australians  IA2.2: Collaboratively review and refine roles and responsibilities  IA2.3: Review governance arrangements to ensure they include relevant stakeholders  IA2.4: Strengthen the involvement of environmental agencies and environmental and community groups  IA2.5: Identify and implement opportunities for greater industry and community involvement in decision-making bodies  IA2.6: Deepen international partnerships and capacity building  IA2.7: Strengthen understanding of antimicrobial and pesticide resistance and zoonotic pathways  IA2.8: Coordinate our international advocacy efforts to help shape global standards, rules and conditions |
| Highly skilled workforce | IA3.1: Identify current and future skills needs in key areas  IA3.2: Develop a national workforce strategy to build, retain and deploy capability  IA3.3: Build upon and expand existing cooperative and partnership arrangements  IA3.4: Strengthen professional development programs |
| Coordinated preparedness and response | IA4.1: Undertake and promote regular national preparedness exercises  IA4.2: Advance regionally based planning activities  IA4.3: Continually review and update risk information to inform priorities  IA4.4: Actively embed continuous learning  IA4.5: Strengthen traceability arrangements  IA4.6: Enhance our national surveillance and early detection arrangements  IA4.7: Evolve our national information management frameworks |
| Sustainable investment | IA5.1: Work together to identify funding needs and determine priorities  IA5.2: Strengthen frameworks to agree and deliver priority investments  IA5.3: Advance co-funding and investment strategies with stakeholders  IA5.4: Increase the transparency of biosecurity funding  IA5.5: Complete the development of a system performance and evaluation framework |
| Integration supported by technology, research, and data | IA6.1: Continue to invest in and roll out transformative technologies to digitise and automate processes  IA6.2: Increase stakeholder coordination to prioritise, drive and deliver national research outcomes  IA6.3: Actively share data and research widely  IA6.4: Enhance the accessibility and use of surveillance and interception data  IA6.5: Further support innovations to build science and research capacity  IA6.6: Encourage the uptake of existing and emerging technologies, systems and processes  IA6.7: Increase the use of citizen science, Indigenous knowledge and on the ground insights  IA6.8: Encourage greater private sector investment in the development and delivery of biosecurity innovations |

## Appendix B: Activities for future consideration

Table B1 Activities for consideration under this and future action plans

| Priority areas | Proposed future activities |
| --- | --- |
| Priority area 1: Shared biosecurity culture. | Review social science research to expand adoption and drive proactive biosecurity behaviours. |
| Identify and engage regional biosecurity champions to promote biosecurity behaviours and outcomes. |
| Consider ways to engage children and youth in biosecurity such as through animated series, national television and the development of games. |
| Priority area 2: Stronger partnerships. | Develop and support programs to improve import pathway partners and offshore suppliers’ understanding of biosecurity requirements to reduce risks prior to arrival in Australia. |
| Incorporate Indigenous cultural heritage protection into all relevant biosecurity activities including risk assessments and priority risk lists. |
| Support for Pacific nations to eradicate and manage high priority environmental threats including invasive ants. |
| Strengthen near neighbour relationships by considering how to build on existing national engagement partnerships of relevance to biosecurity, including wildlife and Antimicrobial Resistance (AMR). |
| Priority area 3: Highly skilled workforce. | Establish a tertiary education committee to explore how biosecurity can be embedded into existing qualifications, boost awareness of professional roles and explore career pathways at schools including:   * primary and secondary teacher professional development * industry based work experience programs for school-based students * micro-credentials for industry and related professions * joint industry internship programs, and * development and implementation of national training standards for subjects including surveillance methods, arial marksmen etc to increase emergency response capacity. |
| Leverage links between highly skilled workforce and shared biosecurity culture. For example, if people better understand the value of biosecurity and the link to the work they do, it could help with staff recruitment and retention. |
| Priority area 4: Coordinated preparedness and response. | Align biosecurity preparedness and response activities with contemporary principles and governance of emergency disaster management, Covid-19 etc. |
| Develop regional biosecurity response and preparedness capacity and capability. Includes improving community knowledge of invasive pests, diseases and response plans, and traceability. |
| Utilise strategic intelligence to inform operational and tactical activities, for example Climate Change data to inform pathway surveillance. |
| Continue to improve coordination through a One Health approach, for example multi-pathogen testing of samples. |
| Conduct a national capacity needs assessment of all molecular diagnostic laboratories that support testing to identify biosecurity risks. |
| Investigate the development of a national, coordinated surveillance data-sharing and response system for surveillance activities. |
| Develop environmentally appropriate benchmarking across different types of risks to ensure environmental risks are fully accounted for in prioritisation. |
| Review and investigate ways to strengthen traceability of biosecurity risks associated with the aquatic sector. |
| Priority area 5: Sustainable investment. | Productivity Commission report into the value of the biosecurity system to inform risk-based investment decisions. Consider quantifying contributions to biosecurity made by producers. |
| Build on findings of CEBRA work investigating feasibility of an insurance scheme to raise funds to address biosecurity risks caused by international shipping and other international risk creators. |
| Investigate feasibility of a Biosecurity Future Fund. |
| Review and consider expansion of emergency response deeds (EPPRD, EADRA, NEBRA) to include national containment where cost beneficial. |
| Investigate a national model for routinely co-investing in biological control. |
| Priority area 6: Integration supported by technology, research and data. | Develop a national biosecurity data strategy. |
| Use AI to strengthen data collection combined with auto-scanning or updating platforms – to upload and extract data to address national, state and local priorities. |
| Support development of next generation intervention technologies (novel vaccines, genetic control options, novel biopesticides). |
| Universities and governments engage in citizen science initiatives to broaden data collection. E.g. beekeepers contribute to research on Varroa control or breeding programs. |
| Investigate the feasibility of sharing surveillance data with stakeholders in real-time. |
| Investigate a nationally harmonised process for diagnostic sample submission and testing for notifiable, exotic or emergency animal diseases. |
| Publish all data needed to assess how well Australia is tracking against environmental commitments, including the global biodiversity framework target 6. Publish the weed risk assessments informing plant import decisions. |
| Prioritise funding for environmental biosecurity RD&E to support delivery of the National Environment and Community Biosecurity Research, Development and Extension Strategy. |
| Develop a roadmap that can promote a shared understanding, identify priorities and highlight the value of investing in technology, research and data. |

## Glossary

| Term | Definition |
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| activities | Action plan activities that contribute towards delivering the initial 36 actions in the NBS. |
| AGSOC | Agriculture Senior Officials Committee comprises all department heads and CEOs of Australian, state, territory, and New Zealand government agencies responsible for primary industries policy issues. |
| AMM | The Agriculture Ministers’ Meeting comprises Australian, state and territory government ministers with responsibility for national issues relating to the agricultural sector, including matters of biosecurity. |
| biosecurity stakeholders | Australian, state and territory governments, industry, First Nations people, landowners and managers, environmental groups, research organisations and the community |
| Commonwealth | The Commonwealth of Australia refers to the legal entity established by the Commonwealth of Australia Constitution Act or institutions (such as parliament) established by the Act. |
| FPIC | Free, Prior, and Informed Consent is a specific right that pertains to Indigenous peoples and is recognized in international human rights law. FPIC means that Indigenous peoples have the right to give or withhold consent to a project or activity that may affect them or their lands, territories, and resources. This consent must be obtained freely (without coercion), prior to the commencement of the activity, and with full disclosure of information regarding the project’s potential impacts. |
| ICIP | Indigenous Cultural and Intellectual Property refers to the rights that Indigenous peoples have to their cultural heritage. This includes tangible and intangible aspects such as cultural practices, traditional knowledge, ancestral remains, cultural expressions, and genetic resources. ICIP encompasses both the individual and collective rights of Indigenous peoples to maintain, control, protect, and develop their cultural heritage and knowledge systems, in accordance with their laws, traditions, and customs. |
| initial actions | 36 initial actions were developed across the 6 priority areas as part of the NBS in consultation with stakeholders. |
| NBC | Formally established under the Intergovernmental Agreement on Biosecurity (IGAB), the National Biosecurity Committee provides advice to the AGSOC on national biosecurity, and on progress in implementing the Intergovernmental Agreement on Biosecurity. |
| NBS | The National Biosecurity Strategy provides a collective vision for Australia’s future biosecurity system - a biosecurity system that protects Australia’s way of life. |
| NIC | The National Biosecurity Strategy Implementation Committee was established to support the delivery of the NBS. |
| traceability | The ability to follow the movement of a product through stages of production, processing, and distribution (ISO 22005:2007). In agriculture, traceability typically refers to the tools, systems and processes that enable tracing of agricultural production, food-producing animals and products, back and forth along entire supply chains. |
| Working Group | The National Biosecurity Strategy (NBS) Implementation Working Group (Working Group) was established by the NBS Implementation Committee to support the planning stage of NBS implementation, which included the development of an implementation plan and an action plan. |