# Northern Australia Biosecurity Strategy 2030

Northern Australian Biosecurity Framework Reference Group

Northern Australia Quarantine Strategy, Department of Agriculture, Water and the Environment



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## Foreword

On 31 May 2019, the Northern Australia Biosecurity Framework Reference Group supported the development of a Northern Australia Biosecurity Strategy (the strategy), noting the need for alignment with existing biosecurity strategies. After analysis of the existing biosecurity strategies from jurisdictions and industry, and engagement with multiple stakeholders, it became apparent that a more collaborative and consultative approach to managing the biosecurity challenges of the north was needed for the next ten years.

The strategyis explicit in not diluting or duplicating existing government biosecurity arrangements, Northern Australia Quarantine Strategy (NAQS) operational activities or individual industry plans. This strategy is expected to build on work done to date, leverage resources and address gaps to deliver better biosecurity outcomes. Proposed Northern Australia Biosecurity Strategy Partnership Agreements (NABS-PA) will support the implementation of the strategy and are intended to build on the Memorandum of Understanding which has been signed by governments. The NABS-PA will provide a mechanism for expanding collaboration and investment on biosecuritybeyond the northern jurisdictions to include industry and community groups.

The Northern Australia Biosecurity Framework Reference Group (NABF Reference Group) is the proposed governance body for the strategy. The Reference Group ensures that coordination of investment, cross jurisdictional initiatives, industry and community engagement is occurring in line with the strategy’s vision and objectives. The NABS-PA provide the enabling arrangements to support community, industry and cross jurisdictional planning and funding of projects as part of the shared biosecurity system responsibilities across northern Australia.

The scope of the strategy includes animal, aquatic, environmental and plant biosecurity risks and pathways across northern Australia, including marine environments. The region is defined as being above the Tropic of Capricorn, including Torres Strait. The biosecurity activities covered under the strategy covers functions across the biosecurity continuum including:

* northern government collaboration and reporting
* industry engagement and collaboration, including unrepresented and, or niche producers who are risk creators or particularly vulnerable to biosecurity threats
* community engagement
* compliance with biosecurity regulations
* biosecurity capacity and capability building
* research development and extension
* diagnostics.

Contents

[Foreword iii](#_Toc93406561)

[1 Summary 1](#_Toc93406562)

[1.1 2030 vision 1](#_Toc93406563)

[1.2 2030 objectives 1](#_Toc93406564)

[1.3 The Strategy 2](#_Toc93406565)

[1.4 Governance 2](#_Toc93406566)

[2 Unique Northern Australia 3](#_Toc93406567)

[2.1 Unique northern Australia operating environment 3](#_Toc93406568)

[2.2 Unique natural environment 3](#_Toc93406569)

[3 What we heard 4](#_Toc93406570)

[3.1 Gaps in biosecurity system that impact the north 4](#_Toc93406571)

[4 The Northern Australia Biosecurity Strategy 2030 5](#_Toc93406572)

[4.1 Vision, objectives and initial actions 5](#_Toc93406573)

[4.2 Additional actions emerging from the shared challenges 9](#_Toc93406574)

[5 The Northern Australia Biosecurity Strategy timeline for action 13](#_Toc93406575)

[5.1 Progressing the consultation to draft Strategy for launch for 2030 13](#_Toc93406576)

[5.2 Iterative improvement of the Northern Australia Biosecurity Strategy 13](#_Toc93406577)

[5.3 Roadmap to launch the Strategy 13](#_Toc93406578)

[6 Appendix 15](#_Toc93406579)

[6.1 Initial actions mapped against the four national biosecurity system gaps 15](#_Toc93406580)

## Summary

Increased biosecurity risks and rapid changes in northern Australia require a more collaborative and integrated biosecurity system. The following shifts have been identified as the key drivers for a tailored Northern Australia Biosecurity Strategy that achieves the 2030 vision:

Near northern neighbours

* Increased number of exotic plant and animal pests and diseases are rapidly establishing in our nearest northern neighbours.

Agriculture production

* Increased intensification, complexity and diversification of agricultural industries. More supply chain options.

Industry roles

* Increased need for northern industries such as oil, gas, tourism, agriculture, defence, receivers of international mail, transport industries, aquatic users and industries and conservation areas to support biosecurity surveillance and, or prevention activities.

Indigenous and community roles

* Increased appetite for Indigenous rangers, Traditional Owners and communities to do more biosecurity activities and to help design them.

Trade and business growth in northern Australia

* Increased movement of businesses and people to northern Australia. Increased volume of imported goods and packages.

Environment changes

* Increased extreme weather events, pest and disease dispersal and seasonal conditions, including environmental impacts.

### 2030 vision

To minimise the threat and impact of plant, animal, aquatic and environmental pests and diseases in northern Australia over the next ten years through building an integrated, strong and coordinated northern Australia biosecurity system.

### 2030 objectives

1. Strengthen collaborative partnerships between all system participants and build enhanced coordination of biosecurity actions across northern Australia for better biosecurity.
2. Implement proactive and forward-looking approaches to surveillance and prevention activities in northern Australia.
3. Leverage and invest in Australia’s system-wide capability for the benefit of northern Australian biosecurity.

### The strategy

The strategy aims to improve the consistency of the biosecurity system across northern Australia by setting a framework that supports Commonwealth, state and territory jurisdictional, community and industry collaboration on biosecurity.

### Governance

Governance or the strategy by the NABF Reference Group will:

* ensure coordination, reporting and industry engagement is aligned with the strategy
* provide direction for future cross-jurisdictional projects and funding
* identify targeted biosecurity actions, build partnerships and collaboration in northern Australia.

The NABF Reference Group will oversee the following 3 priorities.

#### Memorandum of Understanding

A Memorandum of Understanding between the Commonwealth and northern state and territory jurisdictions will:

* support new investment through agribusiness growth
* build workforce and capability to manage risks more efficiently
* improve collaboration and sharing of resources, information and analytics
* reduce costs through effective and efficient biosecurity operations
* target effort based on risk profiles.

#### NABF Working Group

The NABF Working Group will:

* support the NABF Reference Group to engage industry and coordinate activities
* support the implementation of the Northern Australia Biosecurity Strategy Partnership Agreements
* ensure the right partners are being engaged in the right way and at the right time
* support collection of lessons learned, success stories for reporting.

#### Northern Australia Biosecurity Strategy Partnership Agreements

* April 2020 – Consultation Draft of the Northern Australia Biosecurity Strategy and priority actions.
* October 2020 – Finalise the strategy and endorse approach to partnering. Agree priority actions for the north.
* February 2021 – Co-develop, refine and finalise actions with partners. Identify and develop partnering agreements.
* October 2021 – Complete pilot projects, communicate success and develop roadmap to 2030.

## Unique northern Australia

### Unique northern Australia operating environment

Northern Australia presents particular biosecurity challenges due to:

* the proximity of neighbouring countries
* the ecological and climatic conditions that may be conducive to the introduction of exotic pests and diseases
* the limitations of seasonal access
* the range of operating environments (dense rainforest, rivers, marine parks and remote areas)
* challenges associated with accessing remote areas such as costs and telecommunications and IT access
* the importance of developing and maintaining relationships with traditional owners to build collaboration and access land for biosecurity surveillance and incursion responses.

Exotic pests and diseases come through northern pathways such as via feral animals, migrating birds, water currents and monsoon winds across Australia’s northern borders. Diseases of particular interest include screw worm fly from Papua New Guinea, citrus canker and Foot and Mouth Disease from Asia. Few pests and diseases come from southern Australian states.

### Unique natural environment

Northern Australia is renowned globally for its pristine environmental assets and large biodiversity with unique flora and fauna. It consists of varied natural environments, from wet tropics to dry monsoonal tropics and deserts. The north consists of the World Heritage Listed Daintree Rainforest, Kakadu National Park, Arnhem Land, Great Barrier Reef and the Kimberley wilderness area as well as other eco tourism hotspots. The natural plant and animal diversity in northern Australia is highly adapted to the northern tropical environment; this diversity represents a significant reservoir of susceptible hosts for many of the exotic diseases and pests threatening Australian agriculture and environments throughout the country. A large number of the destructive agricultural pests in Australia are part of the native fauna1.

Safeguarding these environmental assets from incursions of weeds, pests and disease from the south and the north (including the Torres Strait) is essential for Australia’s future and requires investment in surveillance, resources, infrastructure and capability.

1 Department of Agriculture Water and the Environment Northern Australia Quarantine Strategy (2018)

## What we heard

### Gaps in biosecurity system that impact the north

The following gaps in the biosecurity system that impact Northern Australia:

1. Resources in the north for biosecurity are low.

The funding for people, capability, offshore monitoring, expertise, infrastructure, technology and response is not adequate to meet increasing biosecurity requirements in the north. A shift to incentivising producers and industry to take up more biosecurity responsibilities will need to be explored in the future. Technology that supports both productivity and biosecurity should be implemented, particularly for horticulture and emerging plant and aquaculture industries that are likely to expand.

1. Diagnostics capability needs enhancing. (A national biosecurity concern).

This includes ability to detect emerging pests and diseases as well as the availability of certified diagnostic facilities and pen-side/on-site tests.

Data and research availability for modelling, surveillance and decision making is not available or fit-for-purpose in the north.

There is a lack of data collection infrastructure, systems, large data capability and data sharing between governments and industry in the north. In addition, improved access to relevant northern Australia research and industry-driven research needs to be built over the next ten years. Data sharing is a national biosecurity concern but has larger impacts on the north due to remote IT challenges and distance.

Aquaculture and marine biosecurity is lagging. (This is also a national biosecurity concern but is amplified in the north due to proximity to Asia and warmer temperatures).

Biosecurity capability and support for growing aquaculture industries needs to be developed. The risks associated with marine pests and diseases from Asia establishing in northern ports is growing quickly. The aquatic industry expansion is at risk from new viruses coming through the use of raw fish bait in marine environments. Regulation and investment in the scientific understanding of the risks must keep pace with the biosecurity risks and pathways.

Government stewardship of the national biosecurity system has been challenging. The increased biosecurity risks that Australia will face over the next ten years that relate to increased trade, travel, urbanisation and climate change are significant and not able to be mitigated by governments alone.

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.

It should be noted that these gaps were identified by the majority of stakeholders engaged, not all. For example, the Australian Banana Growers Council (ABGC) thought their research was fit for purpose in the north and were satisfied with what they were getting with their research investments.

## The Northern Australia Biosecurity Strategy 2030

### Vision, objectives and initial actions

#### Vision statement

To minimise the threat and impact of plant, animal, aquatic and environmental pests and diseases in northern Australia over the next ten years through building an integrated, strong and coordinated northern Australia biosecurity system.

#### Objectives

Governments have developed a set of principles for partnerships nationally through the Intergovernmental Agreement on Biosecurity (IGAB). We seek to extend this partnership to other biosecurity system participants in the north through identifying or developing Northern Australia Biosecurity Strategy Partnership Agreements2 (NABS–PAs) that commit participants to:

* actions agreed to by governments and industry to better target investment and prioritise biosecurity activities
* measure and report on the agreed actions (evaluate effectiveness of the actions)
* transfer knowledge, share information and decision making across all biosecurity participants.

The initial objectives were written following engagement with governments and select northern Australian industries in 2019. The actions for each objective on the following pages were prioritised using feedback from NAQS and the NABF Reference Group. Additional actions are categorised into prevention and, or preparedness, incursion, eradication, maintenance and recovery components of biosecurity. The Department of Agriculture, Water and the Environment plans to establish an approach to evaluate achievement of these three objectives. The objectives of the Northern Australia Biosecurity Strategy to 2030 are to:

1. Strengthen collaborative partnerships between all system participants and build enhanced coordination of biosecurity actions across northern Australia, to deliver better biosecurity outcomes (including partnerships between governments, industry, Indigenous Rangers and communities and the broader community).
2. Implement proactive and forward looking biosecurity activities to minimise the threat and impact of plant, animal and environmental pests and diseases in the north, over the next ten years.
3. Leverage and invest in Australia’s system-wide capability for the benefit of northern Australia biosecurity, including its research and innovation capacity, data sharing capability, identifying opportunities for efficiencies and reinvestment, and integrate priorities for northern Australia.

2Agreements may be in the form of extending existing agreements or arrangements or developing statements of intent or new agreements.

#### Objective 1

To strengthen collaborative partnerships between all system participants, build enhanced coordination of biosecurity actions across northern Australia, and deliver better biosecurity outcomes including partnerships between governments, industry, Indigenous rangers, traditional owners and communities.

The NABS-PAs will be established so that participants share responsibility for priority actions.

Given the close relationship between environmental, plant and animal biosecurity, the NABS-PAs should include environmental agencies and peak bodies as well as local councils.

##### Strategic

* Determine how northern priorities or agendas are considered by existing departmental and government governance bodies.
* Determine how northern priorities are considered and aligned with national, jurisdictional and other strategic biosecurity frameworks already in place. Priorities should consider environmental biosecurity strategies such as the National Environment and Community Biosecurity Research, Development and Extension Strategy, invasive species strategies, natural resource management bodies and relative cost sharing deeds, for example, the Emergency Animal Disease Response Agreement, the Emergency Plant Pest Response Deed and the National Environmental Biosecurity Response Agreement.

##### Operational

* Develop Letters of Intent with industry, community and other participants to form a NABS-PA. These letters would detail support for biosecurity surveillance and preparedness activities and investments. They could also include identifying and leveraging existing agreements with industry or communities.
* Streamline the approach for sharing data, information and biosecurity intelligence, including incursion or surveillance data from airports, ports and sentinel herds collected by the Commonwealth.
* Engage, partner with, and incentivise non-government diagnostic service providers to provide diagnostic infrastructure and capability to keep pace with industry developments, including the emerging and expanding aquatic industries.

##### Governance

* Initiate an annual or bi-annual engagement on the strategy and joint planning across governments, industry and community partners, for example, a NABS-PA annual conference. Regular engagement should include environmental biosecurity participants such as the office of the Australian Chief Environmental Biosecurity Officer, jurisdictional environment representatives, natural resource management and eco-tourism groups.
* Use the annual or bi-annual engagement to obtain feedback from industry and community participants on the strategy and its priorities and actions, for example, streamlining data sharing across all participants.

#### Objective 2

To implement proactive and forward-looking approaches to biosecurity activities in northern Australia to minimise the threat and impact of plant, animal and environmental pests and diseases in the north over the next ten years.

Biosecurity capability support could be included as part of the foreign aid provided to our near northern neighbours.

##### Strategic

* Identify gaps in northern surveillance and preparedness, recognise sectoral and regional differences and ensure industry agree on outcomes. This could start with confirming the gaps identified within this strategy (marine biosecurity, diagnostics, research and resources) and determining how investment occurs across participants. For example, stronger synergy could be achieved between marine or aquatic research groups, CSIRO, governments and industry to develop more marine and, or aquatic biosecurity surveillance tools and diagnostics.
* Identify previous collaborative projects that could be expanded, continued or extended to other industries and commit to prioritising investment in them. For example:
	+ using industry liaison officers to support biosecurity in emerging industries such as Indigenous bush tucker and tropical fruits and the growing aquaculture industries in northern Australia, or
	+ risk assessment of pest pathways into northern Australia, risk profiles for priority animal diseases across northern Australia.

Stakeholder insight

Industry may need to share in the management of risk pathways through better quality management systems. In particular, the risk pathway work for plant health must now be translated to more operational or functional activities, focusing on the right activities at the right time, with the right industries and markets.

##### Operational

* Use a collaborative design approach with industry to develop surveillance and preparedness measures and use an appropriate engagement process with industry partners, bring industry along, consider industry driving the effort.
* Map a current view of the northern Australia biosecurity risks, using existing pest pathway analysis and previous project investment. Include biosecurity incursions that impact the environment, noting that the majority of biosecurity incursions impact the environment, as well as agriculture. Build incursion response capability early (prior to incursions) through training. Ensure that training covers responses in the marine or aquatic environments and supports emerging industries that have not experienced biosecurity incursions.

Stakeholder insight

There is no consistent compliance or surveillance approach to managing high risk pathways across jurisdictions because of the differences in perceived risks across jurisdictions. The investment in surveillance should be coupled with investment into regulation and compliance. Continued investment in diagnostic services is a dependency for surveillance.

#### Objective 3.

To leverage and invest in Australia’s system-wide capability for the benefit of northern Australia biosecurity including its research and innovation capacity, data sharing capability, identifying opportunities for efficiencies and reinvestment and integrated priorities for northern Australia.

##### Strategic

Build strategic influence for research priorities to make sure northern Australia biosecurity requirements are understood by research bodies and the research outcomes are able to be applied by northern industries. To do this:

* use or support northern Australia-specific research and development corporations and cooperative research centres (RDCs and CRCs) as well as other research areas, particularly for biosecurity plant health, bush tucker and aquatic industries
* obtain insights into areas of interest from academics who can access funding and international research that is relevant to northern biosecurity in both dry monsoonal and wet tropics environments
* investigate pests and diseases that might be introduced by northern agricultural production and adversely impact the environment and Australia’s native species. This will make sure that the right surveillance tools and resources are in place to monitor environmental impacts of emerging and expanding agricultural industries in the north, including aquatic industries and northern marine environments
* fund higher education programs such as Masters and PhD projects that support northern priorities, ensuring that partnership participants engage in and help inform projects.

Funding for actions may be through related reform priorities such as the Office of Northern Australia for infrastructure investment or from existing government programs like community development or employment initiatives.

##### Operational

* Build a data sharing and information portal or use existing national infrastructure, for example, the national data sharing and information portal and the site for reporting an outbreak that meets the operational needs of government and industry for biosecurity activities, including communications about biosecurity risks.
* Develop better relationships with farmers and producers so that there is better understanding of what they need for surveillance and what data they are willing and able to collect and share. Survey northern agriculture industries.
* Build partnerships with oil, gas, tourism industries and defence, utility providers, livestock saleyards and local government to co-fund wash down facilities and portable clean down pads in strategic locations across northern Australia.
* Engage with Indigenous communities, Traditional Owners, Land Councils and corporations to obtain feedback about biosecurity efforts and to co-develop solutions.

Stakeholder insight

Compatibility and connectivity to multiple data sources are at the heart of biosecurity surveillance and risk management. The need to collect data for proof of freedom of disease for market access overseas and interstate should be underpinned by agreed standards across jurisdictions and industry. Robust value proposition for data is needed to encourage further investment.

### Additional actions emerging from the shared challenges

#### Prevention and preparedness

##### Shared challenges

* Surveillance and response capability in the north is low and the remoteness and distance make it expensive.
* Funding for implementing IGAB recommendations and for northern surveillance is not available.
* Data on biosecurity interceptions at airports and sea ports is not shared effectively by the Commonwealth to the jurisdictions.
* Risk pathways in the north for emerging industries have not been defined and are growing.
* Diagnostics, data analytics and scientific capability is generally lacking in the north including large data analysis capability.
* Pest pathway modelling and analysis that considers climate change, new infrastructure or emerging industries is not available for informing northern surveillance.
* Research on risk pathways by institutions, RDCs and CRCs is not always fit for purpose or focused on industry concerns in the north.
* Governments and industry are not aware of what biosecurity risks smaller industry players are exposed to or whether they are implementing biosecurity plans.
* More points of entry across the north, more people and more agricultural industries, for example, boutique-bush food raise the biosecurity risk profile in the future.
* Inadequate numbers of industry liaison officers are funded to support existing or emerging industries in the north.
* Technology to do aquatic surveillance is not available for Northern Territory government to undertake aquatic surveillance.
* The differences in northern biosecurity risks and pathways are not appreciated nationally.
* Wet tropics and dry monsoonal tropics need different biosecurity prevention and preparedness. Research could support this.
* Urban and peri-urban pests represent a high risk establishment point and are difficult to monitor.

##### Additional Future Actions

* Build surveillance and response capability through better engagement and recruitment of stakeholders, including local councils, pastoralists, Indigenous communities, Indigenous rangers, tour operators, irrigation and service utility providers, defence, recreational and commercial fishers and peri-urban land users. Expand sentinel sites in the north and overseas.
* Involve Indigenous rangers in small or large scale biosecurity responses regularly to keep their skills relevant. Identify and target gaps in the biosecurity capacity of Indigenous rangers and support rangers to engage with broader Indigenous communities on biosecurity.
* Lift large data capability so that increased diagnostics can be managed and used for example, the use eDNA diagnostics and high throughput analysis.
* Identify technology that can be used to undertake surveillance in the remote north. Work with Indigenous land owners and corporations, wider community groups and industry to support surveillance in the north using modern technology.
* Jurisdictions and industries work together to continue to update pest pathways that are relevant to their region and agriculture investments. Invest in modelling, surveillance and pathway analysis to better understand natural pathways, impacts of climate change and other industry and infrastructure changes planned over the next ten years.
* Maintain airport dogs and invest in more odour dogs for biosecurity pest surveillance. Invest in surveillance technology that detects pests across multiple pathways and commodities.

#### Incursion and response eradication

##### Shared challenges

* The north does not have capacity or capability to respond to incursions which will increase by 2030.
* The north lacks adequate wash-down facilities at ports and borders.
* Communications are not co-ordinated effectively.
* The farmer does not understand what the government is talking about during incursions. What is a deed? The farmer and community lack education about incursion responses.
* Getting feedback from Indigenous communities regarding biosecurity risks, incursion management and eradication.
* Data collection and modelling for weed dispersal, climate change, natural pathways and other risk pathways is poor.
* Incursion responses in recent times did not involve industry or farmers. A lack of an industry person or an industry business development representative was seen as being needed in the future.

• The current National Environmental Biosecurity Response Agreement (NEBRA) process for nationally cost-sharing environmental incursions is infrequently enacted and is not fit-for-purpose for localised incursions in northern Australia and does not distinguish offshore islands as special areas for incursion responses.

##### Additional future actions

* Build incursion response capability through training. For incursion management and eradication, use more industry participants and include Indigenous rangers. Build subject matter expertise capability for pest management, response, diagnostics and endemic pests in the north.
* Use proactive engagement to engage the community and industry, explaining the biosecurity system and incursion response prior to an incursion. Use more simulations and town hall type meetings to engage community and industry.
* Develop plant pest dispersal models for natural pathways and climate change impacts across the north. Investigate what data is required to undertake modelling and put effort into funding infrastructure that enables better data collection.
* Ensure industry business development representatives are included in the incursion response team to support market return following an incursion.
* Develop a funding mechanism to respond to high priority incursions into northern Australia which may not fall under the Deeds, or NEBRA. This may be containment or eradication of pest and diseases that may be present in other parts of Australia but are new threats to northern Australia, including off-shore islands. Off-shore islands should be treated differently due to the potential amplified threat of invasives and the opportunity to eradicate.

#### Management and containment

##### Shared challenges

* Lack of industry liaison officers generally. For new and emerging northern agriculture investments this will mean that within two years when the pests start to become an issue, there will be no industry subject matter experts to support these new ventures.
* There needs to be a shift away from investing in technology that only supports productivity and not biosecurity. There is not enough investment in technology that supports multiple commodities, across multiple pathways and pests.

##### Additional future actions

* Shift technology investments away from focusing on productivity to include capability for biosecurity surveillance that shows freedom of disease.
* Develop innovative commercial solutions for feral animals that support Indigenous and remote communities.
* Shift technology investments towards surveillance initiatives that cross hosts and commodities instead of developing solutions targeted at a single pest or pathway.

#### Recovery and resilience

##### Shared challenges

* Lack of focused research and development for northern resilience.
* Connection between jurisdictions, RDCs, community, local government, Indigenous rangers and parks and wildlife agencies.
* Rangers and tourist operators needs to be better managed and coordinated. Innovative management of recovery is lacking.

##### Additional future actions

* Build and share communication products that can be re-used. Target local governments and tourist operators in communications. Make the message clear, simple and relatable.
* Ensure research into new emerging industries in the north focuses on supporting social and community resilience and enables industry action.

## The Northern Australia Biosecurity Strategy timeline for action

### Progressing the consultation to draft strategy for launch for 2030

Due to the extensive consultation required to develop a Northern Australia Biosecurity Strategy and the need to engage national biosecurity committees, peak bodies, industry and community stakeholders, it was decided that a working group would be established to progress and refine the actions detailed in theconsultation draft*.*

Once the strategy is updated and endorsed by the reference group*,* theworking group will develop a targeted Implementation Plan that will detail who will be partnering with the Department of Agriculture, Water and the Environment to fund and implement the agreed actions.

The working group will work to identify industry and community stakeholders to be further engaged and develop measures to monitor success, report opportunities and detail northern biosecurity threats.

### Iterative improvement of the Northern Australia Biosecurity Strategy

1. May 2020 – consulation draft to develop draft strategy by the NABF Reference Group.
2. October 2020 – endorsed strategy. May require further consultation needed to finalise by the NABF Working Group (includes Animal Health Australia, Plant Health Australia and Memorandum of Understanding participants from the northern jurisdictions).
3. December 2020 to February 2021 – Implementation plan tailored for priority actions and NAPS-PA by the NABF working group and industry and community partners.
4. From June 2021 ongoing – Monitoring and reporting, measures of success, targets and outcomes. NABF Working Group reports to the NABF Reference Group.

### Roadmap to launch the Strategy

#### Establish, partner, pilot

November 2019 through to October 2021.

##### Establish the Northern Australia Biosecurity Strategy, November 2019.

1. Goals

Endorse the Northern Australia Biosecurity Strategy.

Establish the Working Group to help implement the strategy.

Endorse the approach to develop NABS-PA.

Output and activities

The consultation draft of the strategy developed with the vision, objectives, priority actions and next steps. Working Group established to refine and finalise the strategy. Memorandum of Understanding3 between jurisdictions is signed and enables alignment with the Northern Australia Biosecurity Strategy.

##### Co-develop actions and enlist statements of intent from northern Australia participants in the NABS-PA, November 2020.

1. Goals

Implement agreed approach to partnership and obtain buy in from northern biosecurity system participants.

Output and activities

Implementation Plan that details PAs with the initial industry and community stakeholders comprising statements of intent and detailed priority actions that align with objectives.

Determine priority projects for quick wins. Governance and reporting agreed by participants and endorsed by NABF Reference Group.

##### Pilot priority projects and finalise 2030 Roadmap, February 2021.

1. Goals

Detail the actions and projects to 2030.

Show the partnership model works by piloting the agreed priority projects and report success.

Output and activities

Roadmap to 2030. Pilot Project Reports are presented at the annual Northern Australia Biosecurity Strategic Partners Conference. Next steps and projects defined and investment in roadmap secured.

3This will be an operational level agreement e.g. joint surveys where appropriate to save effort, share diagnostic resources, develop technical capacity strategically.

## Appendix

### Initial actions mapped against the four national biosecurity system gaps

Resources in the north for biosecurity are low. Initial proposed actions against this target are:

* use a collaborative design approach with industry to develop surveillance and preparedness measures and use an appropriate engagement process with industry partners to bring industry along and consider industry driving the effort
* build incursion response capability early, prior to incursions, through training. Ensure training covers responses in the marine or aquatic environments and supports emerging industries that have not experienced biosecurity incursions
* build partnerships with oil, gas and tourism industries to co-fund wash down facilities in the Northern Territory. These actions are supported by the Northern Territory Department of Primary Industry and Resources and the Western Australia Department of Primary Industries and Regional Development
* initiate an annual or bi-annual engagement on northern Australia biosecurity to undertake joint planning and strategy development across governments, industry and community partners, for example, a NABS-PA annual conference.

Diagnostics capability needs enhancing. Initial proposed action against this target are:

* engage, partner with and possibly incentivise non-government diagnostic service providers to fund diagnostic infrastructure and capability to keep pace with industry developments, including the emerging and, or expanding aquatic industries in the north.

Data and research availability for modelling, surveillance and decision making is not available or fit-for-purpose in the north. Initial proposed actions against this target are:

* streamline the approach for sharing data, information and biosecurity intelligence across system participants
* build strategic influence for research priorities to make sure northern Australia biosecurity requirements are understood by research bodies and that the research is able to be applied by northern industries
* build a data sharing and information portal or use existing national infrastructure that meets the operational needs of government and industry for biosecurity activities, including communications about biosecurity risks
* develop better relationships with farmers and producers so that there is better understanding of what they need for surveillance and what data they are willing and able to collect and share.

Aquaculture and marine biosecurity is lagging. Initial proposed actions against this target are:

* identify previous collaborative projects that could be expanded, continued or extended to other industries and commit to prioritising investment in them. For example, using industry liaison officers to support biosecurity in emerging industries, for example, Indigenous bush tucker and tropical fruits and the growing aquaculture industries in northern Australia
* engage, partner with and possibly incentivise non-government diagnostic service providers to fund diagnostic infrastructure and capability to keep pace with industry developments, including the emerging and, or expanding aquatic industries in the north
* investigate pests and diseases that might be introduced by northern agricultural production and adversely impact the environment and Australia’s native species. This will make sure that the right surveillance tools and resources are in place to monitor environmental impacts of emerging and expanding agricultural industries in the north, including aquatic industries and marine environments.