Australian Government
Inspector-General of Biosecurity

Adequacy of department's operational model to effectively mitigate biosecurity risks in evolving risk and business environments

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Contents

Review process

Scope of review

The review examined whether the department's biosecurity operational model is appropriate for the risk mitigation and regulatory tasks it needs to perform both now and in the future. The review examined:

- accountability:
  - the role of policy areas (risk owners) and operational areas of the department, and all streams in between, in 'owning' and mitigating biosecurity risks associated with imported commodities and non-commodities, as well as the interrelationships between those areas and their interdependence
  - development, upgrade and adoption of technical/operational policies, procedures, guidelines and work instructions that deal with efficient and timely management of risks
  - whether resource demands and operational obligations can be met without compromising other critical biosecurity activities, such as Cargo Compliance Verification or leakage/end-point/free-line surveillance and verification surveys
  - follow-up on breaches of regulatory obligations (including systemic changes)
- decision-making/regulatory authority: how frontline biosecurity officers/auditors exercise their powers to manage identified biosecurity risks at approved arrangement sites. The review looked at:
  - availability of suitable data to support decision-making
  - clarity and strength of regulatory authority
  - availability and clarity of documentation to support operational decision-making
  - ability and authority to make technically complex and/or potentially contentious operational decisions
  - sanctioning of regulated entities (and potential for immediate suspension where critical noncompliance is detected)
  - the level of competence and confidence that staff and managers have to make decisions and take responsibility in situations where they have apparent authority. This included adequacy of training and decision-support materials

- chain of command: the communication channel (and layers) between the department's technical and policy areas and its compliance and operational areas; and whether those communication processes can deliver accurate and quality advice for risk management – for example, action or inaction against biosecurity industry participants who fail to meet regulatory obligations – in an effective and timely way
- regulatory/compliance activities: the quality and timeliness of advice provided, through chain of command, to frontline biosecurity officers and auditors.

The review did not examine:

- any post-border (domestic) biosecurity responsibilities or functions, or biosecurity matters regarding exports and market access
- policies and activities of external stakeholders, including state/territory governments, individuals, biosecurity industry participants and third-party service providers.

Review methodology

This review utilised an extensive targeted consultation process with external and internal stakeholders to seek their views and any evidence relevant to the review's scope. The Inspector-General and his support team held meetings for targeted discussions with all stakeholders via videoconference. In these discussions, the Inspector-General explored several issues raised by stakeholders and looked at the implications of those issues for the import sector. He also invited suggestions for improvement.

The Inspector-General, along with his team, primarily held meetings with stakeholders via videoconference and received a large number of responses through the Have Your Say survey:

- Industry organisations:
  - Consultation sessions held via video conferences – 25
  - Have Your Say survey submissions received – 13
  - Written submissions received – 3
- Department of Agriculture, Water and the Environment:
  - Consultation sessions held with senior managers via video conferences – 15
  - Have Your Say survey submissions received from staff – 123.

This input addressed a broad range of issues from commodity-specific and pathway-specific concerns to fundamentals of the management and operation of Australia's biosecurity system. The spirit and enthusiasm with which all stakeholders approached the consultation was impressive.

Without exception, all external and internal consultation sessions were constructive. Their focus was on a frank examination of critical weaknesses in Australia's approach to 'preventative biosecurity' and how the risk might be mitigated or resolved. Industry stakeholders were supportive of the department's work and provided valuable input on how the department could achieve better biosecurity risk mitigation – preferably without further burdening the import sector.

In October 2020 the Inspector-General released an interim report that summarised consultations with industry and department representatives. The purpose of the interim report was to provide contributors with an opportunity to consider the significant input received through the initial consultation process and give them an opportunity for further targeted contributions based on the themes identified.

In each section of this report, industry stakeholder and department staff input has been integrated to provide an analysis of the major issues covered that are within the scope of this review. This report does not in any way use a 'they said, we say' approach, and that attitude was not evident in consultations.

The relative weight of stakeholder contributions to each section varies. This is because the Inspector-General has focused on the key issues and potential solutions that contributors identified, so the source of the input is not a feature. In no case has the Inspector-General sought to identify the contributions of any individual organisation or person.

Executive summary

The purpose of this review was to examine the adequacy of the Department of Agriculture, Water and the Environment biosecurity operational model to effectively mitigate pre-border and at-border biosecurity risks in evolving risk and business environments. In conducting this review, comprehensive and valuable input was received from industry representatives and departmental staff (including senior biosecurity managers and other staff).

There were many issues raised that addressed the breadth of biosecurity operations. From this material, several key themes emerged that go to the core of the effectiveness of the current operational model and its ability to withstand the significant pressures of the evolving biosecurity system. None of these themes are new – they have been raised in various forms in reports and reviews of the biosecurity system, biosecurity activities and biosecurity breaches and incursions in recent times.

My broad assessment is that the biosecurity system is not in a strong position to address the diverse and evolving biosecurity risks and business environment expected to prevail in 2021 and through to 2025. This assessment is based on an examination of the systemic problems, including the department's regulatory maturity, its approach to co-regulation, inadequate frontline focus, and the absence of an appropriate funding model. Several other issues, which are termed 'understanding' and 'mindset', are discussed in the report, as these will impact the department's ability to address the systemic issues with the operational model.

Despite a lot of hard work by many dedicated individuals, the department's management of the system has failed to achieve the regulatory maturity required for implementation of key elements of the *Biosecurity Act 2015*. The department did not complete the planned rollout of the Biosecurity Act implementation program, leaving managers, technical staff and frontline officers inadequately trained and supported in the delivery of the new regulatory regime. The department must now address, fully and as a matter of urgency, major deficiencies in the way instructional and supporting policy documentation is developed, approved, stored, updated and made accessible to operational officers, especially those on the frontline.

The department's biosecurity operational model relies on profiling, surveillance, intelligence and science-based, technical assessment of biosecurity risks associated with goods and pathways before imports are permitted. Once these risks are assessed, they are managed through targeted intervention using select systems-based mitigation measures, such as transactional deployment of profiles (system-based filters) across pathways. Risks associated with individual goods, conveyances and people are assessed either by screening (for example, by using X-ray, detector dogs) or physical inspection by the department's frontline biosecurity officers and managed appropriately at the border, consistent with Australia's ALOP.

In recent times this operational model appears to have become fragmented. This has led to single issue dominance at the expense of the broader system. For example, in relation to the 'risk owner' model, input to this review was that it did not help with managing risks, as most risks are managed collaboratively by more than one biosecurity division. It was also felt that the 'risk owner' model appears to make it harder to prioritise risks and may confuse accountability between the biosecurity divisions and relevant senior executives. This is because risk owners often escalate risks in their own area to compete against other risk owners/senior managers for funding and resources. This fragmentation has been exacerbated by the departmental culture and the ongoing cycle of new biosecurity pressures and new government initiatives – this has generated an environment where the department is much better at starting initiatives and promising improvements than it is at delivering the targeted outcomes and locking in completed reforms that enhance the efficiency and effectiveness of the system.

Regulatory maturity

Inadequate regulatory maturity, system design and attitudes are evident in key parts of the department's biosecurity regulatory framework. One of these areas – approved arrangements – was intended to be a cornerstone of the 'future' biosecurity system under the Biosecurity Act. Industry was very clear in their view that the establishment of shared responsibility and biosecurity partnerships through the use of co-regulatory arrangements has, to date, failed to recognise good business systems and compliance levels in the delivery of biosecurity outcomes. Instead of embracing the co-regulatory potential, the department transferred its old arrangements framework to the new Biosecurity Act environment, missing the opportunity to work with industry on integrating biosecurity requirements into offshore and at-border importer supply chains. It is now the case that leading import sector businesses are advancing significantly faster than the department in technology and interconnected business systems. This emphasises the need for the department to improve its co-development of contemporary co-regulation arrangements along with highly capable businesses with strong compliance track records.

Attempts to move beyond the 'old system' are hampered by inflexibility in biosecurity risk assessment decisions that fail to recognise supply chain-based controls and outcomes, compared with specific point-in-time risk mitigations (a treatment). Industry also commented that many areas of the department appeared to have general adverse attitudes to the import sector, preferring control rather than collaboration.

To be effective, co-regulatory arrangement reform must be accompanied by rigorous compliance management. The department has taken small steps to better identify noncompliance and enhance its compliance response efforts, but these efforts are patchy and disjointed. Responsibilities for noncompliance continue to be dispersed across divisions, leading to duplication and a lack of a single entity view.

The department continues to struggle with outdated information systems that affect the way information is recorded, retrieved, analysed and distributed. This impacts the single view of an entity's compliance history, which is foundational to a future co-regulatory operational model. For example, how does the department determine suitability for a co-regulatory arrangement or the development of low-risk importer profiles if it does not have a view of which entities have good compliance?

The department continues to struggle with the implementation and use of the full range of compliance and enforcement tools available under the Biosecurity Act. This is both a capability and a regulatory maturity issue. The department has not matured as a strong, consistent regulator that fully utilises the compliance and enforcement powers provided in the Biosecurity Act. On the contrary: the department appears to be dangerously burdened by historical noncompliance that is both a substantial ongoing workload when prevention of new biosecurity breaches is an urgent priority; and a debilitating drag on the department's confidence that it can be a strong, decisive and effective enforcement agency.

With the need for significant improvement in regulatory maturity, it is positive that the department is currently expressing the level of management concern, commitment and action that is essential if the major deficiencies in the foundation capability of the department to be a high-quality regulator under the Biosecurity Act are to be remedied in a timely and fulsome manner.

Co-regulatory partnerships

The current constraints on timely biosecurity delivery must be addressed if biosecurity risks are to be effectively mitigated without exacerbating adverse impacts on the efficiency, costs and profitability of Australia's import sector.

Import sector business disruption now costs many businesses much more than the department's cost recovery fees and charges. This represents a marked change over the past decade and reflects the increased international and local competitive pressures on businesses in the importing sector. In this new context, industry has a strong incentive to work in partnership with the department to provide higher levels of certainty.

The department's use of terms such as 'risk creator' to describe industry is unhelpful when applied in situations that do not involve an identified deliberate attempt to breach Australia's biosecurity measures. This terminology, when taken to its extreme, means that all users of imported goods (including the agricultural sector) are 'risk creators' or 'risk contributors'. This terminology does not add to discussion or support the creation and longevity of a productive, mutually beneficial 'partnership'.

Similarly, the rhetoric about 'shared responsibility' and 'biosecurity partnership' articulated by government agencies and the post-border beneficiaries of effective prevention biosecurity measures is not currently matched by a genuine, practical and sustained commitment to 'partnership' with the import sector.

It was surprising, and concerning, that the number of pathway-specific consultative committees appear to have declined in favour of multi-stakeholder consultative committees that can only address limited shared or generic matters. It was clear from industry consultations that import sector businesses and industry representatives strongly desire an effective partnership with the department across all significant import risk pathways.

It is essential for the department to significantly enhance its industry engagement focused on cost-effective biosecurity risk mitigation. This could be achieved by establishing practical import sub-sector or risk pathway partnership groups that are seeking to optimise the effectiveness of biosecurity risk mitigation, improve cost sharing and establish more vibrant information and intelligence exchange. This work should be supported through the development of an improvement plan or 'road map' for each pathway, reflecting current initiatives, that provides a foundation for continuous improvement.

Industry should also be engaged as a partner in innovation, with this engagement being viewed as both integral and critical to the future development of the biosecurity system. This collaboration needs to be continuous, including during the implementation of the recommendations of this review.

Frontline focus

A consequence of inadequate regulatory capability building during 2016–2018 is that there has been significant variability in the department's biosecurity delivery and application of the same legal obligations both between officers and across regions. The department has become more risk averse and focus has shifted from managing the biosecurity risks (that is, to achieve better compliance) to legal risks (from client litigation because of defective decision-making). This situation is unhelpful for the department, industry and our nation.

I have concluded that both the suboptimal regulatory maturity of the department and confused communication to frontline staff and biosecurity industry participants are predominantly responsible for inadequate clarity about the department's role as a regulator. Industry demands for a greater facilitation role largely result from industry frustration about regulatory delivery ('service').

The department's management has let its frontline officers down by not driving to completion the training programs that were an essential part of enacting and implementing the Biosecurity Act. This misstep by the department has had wide-reaching and ongoing adverse implications for the department and biosecurity industry participants. It is essential that senior managers have an appropriately strong focus on equipping and supporting regulatory excellence in frontline delivery in order to protect the department, deliver timely regulatory interventions, minimise adverse impacts on clients and minimise the residual biosecurity risk to Australia.

The department has had persistent issues with resource prioritisation and inadequate clarity of accountability for risks and effective delivery of biosecurity outcomes. At their roots these issues have arisen because the balance of the department has been strongly focused on the plethora of pest and disease risks rather than the simpler, more acute areas in which the department's role is expressed – the risk pathways, risk mitigation measures and biosecurity delivery at the operational interface of the department and import sector businesses and international travellers.

The department should establish the behaviours and systems (eventually culture) necessary to enable it to routinely reallocate resources in an agile manner so that it can manage risks along different import pathways. This will assist with meeting surge demand, as and when it is required, without having to withdraw officers from critical business as usual areas.

The department's ability to make stronger investment in more capable frontline staff and support tools appears to first depend on freeing up staff roles in a number of areas where processing is currently inefficient. The department needs to prioritise the transition to electronic documentation and use of digital technology. It needs to move to the use of artificial intelligence (AI) tools for document/label scanning and analysis, and wider adoption of co-regulatory arrangements for sophisticated import sector companies.

This investment is urgently needed and needs to be coupled with effective feedback loops between program areas, frontline staff and industry. Knowledge of successful biosecurity progress and outcomes will both motivate frontline officers and assist them and industry to understand the nature of actual risks in biosecurity pathways and supply chains.

Sustainable funding model

The concept of a sustainable funding model for biosecurity has been raised in review after review for over a decade. Biosecurity remains one of the largest cost-recovered functions in the Australian Government. Government-appropriated revenue funds specific biosecurity areas – most notably, the clearance of air and sea travellers, the Northern Australia Quarantine Strategy (NAQS) and enforcement functions. Even the department's cost-recovered funding is not single-source but a combination of container levy, 'fee for regulatory activity' and Australia Post international gateway fee. In addition, not all pathways have the same fees – for example, containerised cargo has a levy, whereas self-assessed air cargo does not.

This complex funding model, with restrictions on use of cost-recovered versus appropriation-sourced funds, puts limitations on workforce agility and therefore inhibits the effectiveness of the department's operational model. Industry expressed concern that the funding model creates additional administrative burden on the department and leads to perverse outcomes, with the department focusing on functions that can be cost-recovered over those that cannot be funded in this way.

The department's resourcing model and functional structure drive a reactive approach to resource pursuit, allocation and reallocation that is adverse to the interest of the department's efficiency and effectiveness, the import sector client base and overall biosecurity risk mitigation.

The lack of a sustainable funding model is having a tangible impact on the department's current and future readiness. For instance, at current funding levels, it seems unlikely that the department will catch up with today's information technology/information system (IT/IS) needs, let alone future biosecurity information needs, without a significant funding injection or a different paradigm of thinking and strategy.

This issue cannot be addressed by the department working alone. Without its satisfactory resolution, our nation's preventative biosecurity delivery will be less and less capable of providing the risk mitigation both needed and expected.

Understanding and mindset

The final 2 chapters of this report address a range of issues raised during the consultation that go towards preparedness and capability. These have been simplified to 'understanding' and 'mindset'.

'Understanding' considers the department's access, storage and use of data, information and intelligence. An effective operational model relies on an understanding of what is, and is likely to, happen. Without this, the department will be stuck in a constantly reactive cycle. It is likely to miss opportunities to be proactive and thereby reduce biosecurity risk.

'Mindset' considers the need for a refreshed approach to prioritised continuous improvement, innovation and co-creation. To achieve the reforms to the operational model set out in this report, both the department and industry will need to build new engagement processes and engage in new dialogue about how 'we' build the future biosecurity system.

Adequacy of the operational model

The picture outlined above of the adequacy of the department's biosecurity operational model – its regulatory maturity, partnership with industry, frontline focus and sustainable funding – is of deep concern to me and should similarly concern departmental and government decision-makers. The root causes of the department's constrained management, resourcing and delivery options must be addressed so that it can effectively prosecute its current and future obligations as Australia's primary biosecurity agency. The following recommendations provide direction on how this can be achieved.

Recommendations

Recommendation 1

The department should address the major root causes of the 'regulator versus facilitator' confusion – principally through actions that will improve its regulatory maturity and regulatory delivery – and communicate to both staff and industry in practical language its ongoing improvement as Australia's national biosecurity agency.

Recommendation 2

The department needs to be clear to governments, industry and staff that its regulatory standards must not be compromised by biosecurity delivery demands, policy priority shifts, staffing limits and other resource efficiency dividends.

Recommendation 3

The department needs to re-establish frontline (risk pathway based) partnerships with industry, with urgent agenda items including streamlining biosecurity risk mitigation through expanded and improved co-regulation arrangements; and modernised cost recovery arrangements for biosecurity regulatory delivery.

Recommendation 4

The department must apply all necessary commitment to the enhancement and maintenance of its regulatory capability as the foundation to its maturity as a vitally important (and sole) biosecurity regulator for Australia's preventative biosecurity functions.

Recommendation 5

The Inspector-General should review annually, using a standard reporting framework, the progress of the department's strategies to improve its biosecurity regulatory capability.

Recommendation 6

The department should establish commodity and pathway specific working groups for importing sectors, with relevant reporting to an overarching group such as a re-formed Department of Agriculture, Water and the Environment Cargo Consultative Committee (DCCC) and potential linkage to the ministerial Biosecurity Futures Group. All (re-)established groups need a strong focus on co-creation of ways to achieve better biosecurity results more efficiently, with appropriate funding arrangements.

Recommendation 7

The department should provide advice through the Biosecurity Futures Group on options to establish and communicate a contemporary 'biosecurity partnership' approach based on parties at each point in the biosecurity continuum accepting appropriate responsibilities and supporting others in delivering on their contribution to better biosecurity outcomes.

Recommendation 8

To address issues related to timely biosecurity delivery, the department needs to urgently address 2 root causes for suboptimal biosecurity delivery – namely, the level of regulatory maturity and the outdated funding/costing model (see specific sections for more detailed recommendations).

Recommendation 9

In line with the recommendation to establish practical industry partnership groups based on risk pathways or industry sub-sector, the department should ensure that key personnel from industry representative organisations have direct contact details for relevant technical, operational and policy/strategy managers.

Recommendation 10

The department needs to engage with import sector representative organisations to identify a priority plan for rollout of expanded co-regulation arrangements. This should be done as quickly as improved resourcing, regulatory maturity, and compliance and enforcement capability allows.

Recommendation 11

The department needs to boost its capability in behavioural science and behavioural economics (internally or by partnership) so that the targeting of communication, co-regulation, and compliance and enforcement strategies can be improved.

Recommendation 12

The department needs to address the underlying causes of current inadequate biosecurity resource level and inadequate resource agility if it is to improve organisational effectiveness and efficiency that will boost frontline engagement and biosecurity delivery and reduce related risks to Australia's biosecurity status.

Recommendation 13

The department needs to change its resource decision-making, and supporting management arrangements, to reflect the reality that a limited number of controls (measures) are available to prevent a large number of pest and diseases and that optimising the controls in all pathways is a better way to optimise preventative biosecurity risk mitigation.

Recommendation 14

The department needs to establish a 3-year plan to address the strategic priorities identified in this review, which will enable the department to optimise staffing levels and capabilities; it should not continue to reduce operational staffing in isolation of underpinning capabilities, as it will result in impeded import trade and exacerbated biosecurity risk.

Recommendation 15

The department needs to urgently recommend a process to effectively engage with relevant import sector stakeholders in preparing ground-up, co-developed recommendations for cost recovery reform that would optimise the financial needs of the biosecurity regulator and the affected businesses in the import sector.

Recommendation 16

The department should improve the feedback and collaboration between operational, technical and policy areas, which may include establishing community of practice mechanisms, and revamp its use of the Biosecurity and Export Risk Tool (BERT) to drive timely resolution of issues that impede biosecurity delivery and increase residual biosecurity risk.

Recommendation 17

The department needs to establish sound governance arrangements for continuous improvement programs in areas directly affecting the import sector, with those programs directly involving industry representatives wherever practical.

Recommendation 18

The department should consider alternative funding arrangements, including mechanisms to combine government funding with industry co-contribution, to enable the more rapid development and rollout of innovations.

Recommendation 19

There are 4 reform priorities that must be progressed concomitantly, with appropriate strategy, resourcing and timelines for each, if the department is going to free itself from current debilitating drag on its performance and set itself on a course to confidently deliver excellent biosecurity outcomes towards 2025 and beyond:

1. Regulatory maturity
2. Risk pathway partnership
3. Frontline focus
4. Sustainable funding model.

Rob Delane
Inspector-General of Biosecurity
18 February 2021

For the department's response to the recommendations, please see Appendix A.

Chapter 1

An evolving regulatory framework

1.1 National regulatory framework

Biosecurity operates under a national framework. The Department of Agriculture, Water and the Environment is responsible for managing the biosecurity risks associated with imports into Australia.

The *Biosecurity Act 2015* (Cth) was passed by the Australian Parliament on 14 May 2015 and enacted on 16 June 2016. It replaced the *Quarantine Act 1908* (Cth). The Biosecurity Act applies to goods, people and conveyances from 12 nautical miles of the coast (Australian territorial sea) and broadly continues to apply while they remain under biosecurity control. States and territories are responsible for biosecurity risk management and aquatic disease control within their boundaries, including 3 nautical miles out to sea.

1.2 Biosecurity continuum

Australia's quarantine and biosecurity system can be regarded as a continuum, from pre-border to border and post-border activities (which, due to the criticality of pest status for much export market access, may be extended to provide a 'full-circle continuum').

In the pre-border arena, Australia:

- participates in international standard-setting bodies – Sanitary and Phytosanitary measures (SPS agreement)
- undertakes risk analyses of plants or plant material proposed for import
- monitors the disease and pest status of its trading partners, through bilateral and multilateral cooperation
- develops offshore biosecurity arrangements
- works with neighbouring countries to build capacity and reduce the spread of exotic pests and diseases.

At the border, the department screens conveyances (vessels and aircraft), goods (cargo, mail and baggage) and people (human health) entering Australia to detect any threats to human, animal and plant health and the environment.

The Australian Government also takes targeted post-border measures, working with state and territory governments and industry to encourage early detection of any breach or incursion and coordinating emergency responses.

State and territory authorities undertake interstate and intrastate quarantine operations as part of their domestic biosecurity responsibilities and depending on pest and disease status in their regions. Post-border activities are not within the scope of the current review.

1.3 The preventative biosecurity system

Under the Biosecurity Act, the department has sole regulatory responsibility for preventing the entry (beyond the border) of biosecurity risk material into Australia ('preventative biosecurity'), except for human biosecurity risks, where Department of Health has the lead.

The department achieves its prevention role by:

- conducting scientific and technical assessments of goods to determine pest and disease risk
- developing biosecurity risk management requirements (pre-border and at-border) for goods and conveyances
- requiring permits with specific risk management conditions for the import of certain biosecurity risk goods
- risk profiling and targeting of goods and conveyances entering Australia
- authorising arrangements that provide for a person covered by the arrangement (the biosecurity industry participant) to carry out biosecurity activities to manage biosecurity risks associated with specified goods, premises or other things
- conducting assessment and management activities while the goods and conveyances are under biosecurity control
- where there is noncompliance, taking a range of compliance and enforcement actions depending on the circumstance.

Risk-based regulatory arrangements are an indispensable part of the preventative biosecurity system. Through approved arrangements, they provide for thousands of specialised businesses (biosecurity industry participants) to participate in the management of biosecurity risks associated with imported goods under their ownership or responsibility. The department conducts audits and other assurance activities to verify that the biosecurity industry participant is meeting its biosecurity responsibilities and that biosecurity risk material does not enter Australia. It is clear that a strong level of engagement (and compliance) by biosecurity industry participants is essential to effective mitigation of biosecurity risks.

1.4 From the *Quarantine Act 1908* to the *Biosecurity Act 2015*

Biosecurity regulation was managed under the *Quarantine Act 1908* until 16 June 2016, when the *Biosecurity Act 2015* commenced. The *Quarantine Act 1908* was designed to combat serious human diseases such as plague and yellow fever rather than to cope with the complexity of biosecurity challenges posed by modern high-volume and rapid movements of people, goods and conveyances from around the world.

The Biosecurity Act provides that responsibility for biosecurity is shared between government and the import sector. In particular, the Biosecurity Act broadened the scope of 'approved arrangements', under which the person covered by the arrangement (the biosecurity industry participant) carries out biosecurity activities to manage biosecurity risks associated with specified goods, premises or other things (s 404). Once an approved arrangement is in place, the department can then periodically monitor compliance of the arrangement rather than manage biosecurity risk on a transactional basis. The Biosecurity Act also includes a broader range of compliance and enforcement powers to ensure regulatory requirements are met, with penalties that reflect the level of biosecurity risk posed.

When the legislation changed, a massive internal overhaul of policies, procedures, guidelines and training, as well as extensive stakeholder engagement, was required.

The 18-month implementation program was resourced from within the department's existing staffing and budget allocations and was estimated to have cost over $10 million (ANAO 2017a). Early implementation went smoothly, and inspection and enforcement activities continued, but the department's management acknowledged that departmental resources were extremely stretched in the process. Also, the ongoing embedding of the change was impacted by operational priorities, such as the white spot prawn and brown marmorated stink bug (BMSB) responses; increasing cargo and passenger volumes; and recruitment freezes.

1.5 Public sector context

Major reviews of Australia's biosecurity arrangements

The Australian biosecurity system has received periodic attention through major reviews and inquiries and has been closely monitored by key stakeholders on an ongoing basis. The reviews and inquiries have analysed and helped transform Australia's biosecurity system. Reviews have included:

- Nairn et al. (1996) – a significant benchmark review in transforming Australia's quarantine system and which established the concept of 'shared responsibility'
- Callinan (2008) – an equine influenza inquiry report that examined the circumstances that contributed to the outbreak of equine influenza in Australia in August 2007. It made 38 recommendations to the Australian Government
- Beale et al. (2008) – a review that introduced us to the 'risk-return' model, which helped guide the department to better direct scarce resources towards management of higher risk imported goods and pathways

- The Rural and Regional Affairs and Transport References Committee (2012) – a committee recommendation was that the department explore the possibility of developing a mechanism for stakeholders to submit suggestions or complaints confidentially or anonymously
- Craik et al. (2017) – priorities for the Australian biosecurity system – an independent review of the capacity of the national biosecurity system and its underpinning intergovernmental agreement that covered the breadth of Australia's biosecurity.

Australian Public Service Commission Capability Review, 2012–13

In 2012–13 a major capability review of the department (then Department of Agriculture, Fisheries and Forestry) was completed using an Australian Public Sector Commission approved methodology. This forward-looking, whole-of-department review assessed the department's ability to meet future objectives and challenges. The review focused on leadership, strategy and delivery capabilities in the department.

It concluded that the department needed to be:

- a policy leader – responsive to the government of the day and the foremost policy influence on sustainable production and use of food and fibre
- client focused, with a modern service delivery approach – proactive in programs that protect the animal, plant and human health status of Australia and improve the productivity of portfolio industries; and offering the best possible service delivery options to its many and varied clients
- contemporary in its approach to business and ICT systems – building systems that support a modern service-delivery approach, including cost recovery arrangements suitable to its operations
- a source of easily accessible quality public information – shaping the public debate around contentious issues through strong foresighting (UNDP 2015) and scenario analysis and effective communication.

In regard to the department's biosecurity service delivery responsibilities, which were the largest component of the department's resources (approximately 70% of business), the 2012–13 Capability Review found that biosecurity operations were delivering a sound and reliable service. However, it was the review's opinion that the department was many years behind service delivery best practice in the Australian Public Service and that all parts of the department should recognise their impact on service delivery roles and work together for their clients.

In its response, the department recognised that its service delivery performance was not what is expected of a modern service delivery agency, and comprehensive plans to modernise service delivery arrangements were developed and partially implemented.

Future department review

In February 2020, following the creation of the Department of Agriculture, Water and the Environment, the newly appointed Secretary initiated a review to identify how best to maximise the capability of the new department and fully realise the opportunities it presents, consistent with the government's priorities. The review's focus was split between a short-term view of immediate opportunities and the achievement of a longer term 'excellence horizon'.

The scope of the review covered all aspects of the department's functions and identified opportunities for improved connection, synergies, alignment, collaboration, innovation and streamlining – specifically:

- better alignment of the department's operational model to deliver on government priorities, and its flexibility and ability to respond to changes as they occur
- how the department could most effectively and efficiently deliver its functions, including:
  - opportunities to integrate functions (including policy analysis and advice)
  - opportunities for service delivery improvement
  - areas of overinvestment/underinvestment
  - organisational capability, including financial, workforce, data and information technology (IT)
  - how best to manage risks
  - identification of new capabilities needed in the department
- identification of cross-cutting issues with potential for sharing or concentration of resources
- identification of possible tensions between objectives or roles that may require management (that is, regulatory versus policy roles) and suggestions on strategies to reconcile them
- identification of strategies for improved communication and engagement with the community and stakeholders
- identification of opportunities to create a common high-performance culture.

The review led to the publication of a 'placemat' that articulates 8 improvement areas for transforming the department. All 8 improvement areas are relevant to the department's preventative biosecurity functions (DAWE 2020a). The department published 7 overarching recommendations which are directly relevant to biosecurity functions but do not specifically refer to biosecurity.

2020 Context

As part of this review, the Inspector-General received significant internal and external feedback that collectively provided circumstantial evidence that reduced decision-making confidence, increased risk aversion, silo behavior, and ambiguity between technical and operational areas of the department had reduced the efficiency and effectiveness of Australia's primary biosecurity agency. Several previous Interim Inspector-General of Biosecurity and Inspector-General of Biosecurity reports expressed similar concerns (IIGB 2015a, IIGB 2016, IGB 2017, IGB 2019a, IGB 2019c, IGB 2020a and IGB 2020b).

Since the establishment of the Interim Inspector-General of Biosecurity role in 2009, the former 3 Inspectors-General of Biosecurity (plus the current Inspector-General) have collectively published more than 45 audit and review reports. These reports have identified several systemic weaknesses in the department's management of biosecurity across the continuum. So far, they have made more than 300 recommendations for improvement to biosecurity controls for a range of high-risk goods and across pathways.

In line with the findings of the former Inspector-General of Biosecurity (IGB 2019a), the current Inspector-General noted significant weaknesses on both sides of the preventative biosecurity partnership:

- Noncompliance by biosecurity industry participants is too widespread; and, when noncompliance is identified through audit or other operations, actions against noncompliant biosecurity industry participants can be too slow or inadequate.
- Advice given to operational staff can be contradictory to the primary priority of mitigating biosecurity risk. This can lead to confusion amongst frontline staff and lowering of empowerment and confidence in their ability to make timely decisions.
- Complex decision processes, involving a series of emails and telephone calls to various managers and technical experts, lead to delays in processing and clearance of imports and may lead to frustrating business delays and increased risks and costs to businesses.

For some years, there has been significant internal and industry discussion on the department's role as a regulatory agency versus that of a facilitator of safe trade. While relevant areas of the department primarily deliver regulatory functions, the department has been under pressure from 2 directions that may confuse and compromise its role as a regulator:

- pressure from successive governments to 'reduce red tape' and 'facilitate business'
- fee-paying clients viewing the department as a 'service provider' more than a 'regulator'.

This has added confusion internally and externally. As a result, there has been a reduction in confidence among the department's frontline (regulatory/inspectorate) staff even though recent changes to management messaging are making some progress towards better clarity.

Feedback to, and observations by, the Inspector-General during 2019–20 indicate that the department's biosecurity functions have been increasingly stretched in recent years by a combination of factors, including:

- continued growth and diversification of trade and travel volumes and arrival pathways
- emergence of a number of major new threats that have necessitated ramp-up in biosecurity measures pre-border and at-border but with limited or delayed provision of additional resources
- constraints on staff recruitment
- accumulated deficiencies in compliance action(s) against noncompliant biosecurity industry participants
- increased competitive pressures for regulated businesses resulting in demands for efficient and timely regulatory services (functions)
- limited availability of contemporary information systems
- poor flexibility for making changes due to changes in legislation, policies, processes, templates and time frames
- new technology and staff skill sets needing upgrading, including specialised training
- increased ability of opportunistic businesses and individuals to utilise technology advances to seek to exploit any biosecurity system weaknesses.

While the current novel coronavirus disease (COVID-19) and the concomitant global economic downturn have materially reduced trade and travel growth (Carlsson-Szlezak, Reeves & Swartz 2020) below the last published government forecasts of growth (70% by 2025 (DIRD 2017)), significant ongoing growth in quantity and/or complexity is expected. It seems likely that the surge capacity and agility pressures on the department are likely to exceed its ability to effectively deliver preventative measures to reduce biosecurity risks entering Australia to an appropriately low level.

The Inspector-General received significant feedback from both departmental staff and industry stakeholders that the complexity, risk aversion, slowness and inadequate accountability for decisions or non-decisions is significantly impeding the department's capability to address current challenges and sapping confidence that it can address future challenges. If this situation is not addressed, it will continue to weaken the department's effectiveness, increase business cost and disruption, and ultimately expose Australia to increased biosecurity incursions.

1.6 Interim report for this review

The Inspector-General prepared an interim report for this review that provided a summary of the issues raised during consultations with industry and department representatives. Given the substantial input provided, the interim report summarised discussions and responses on 19 broad themes:

1. Shared responsibility imbalance
2. Streamlining delivery of regulatory activities
3. Accessibility to industry
4. Establishing risk pathway partnerships
5. Biosecurity import levy process further undermined sense of partnership
6. Realigning risks, pathways and measures as the delivery focus
7. Continuous improvement
8. Understanding behaviour drivers
9. Co-regulation
10. Risk creators or risk mitigation partners
11. Service or not?
12. Regulator or facilitator
13. Regulatory maturity
14. A reactive organisation
15. Clarity of responsibility
16. Staff capability
17. Workforce agility
18. Lack of high-quality biosecurity data and intelligence
19. Technology and innovation.

The breadth of these themes across the preventative biosecurity system – and, in many cases, the concerns raised about the effectiveness and efficiency of the operational model – starkly illustrates the extent of the challenge. These themes are not new. As noted in section 1.5, there has been a raft of biosecurity system reviews over the past 25 years and most have considered variants of these themes. But the same issues continue to be raised, and with increasing concern, by stakeholders.

This report was not intended to be a 'root and branch' review of the biosecurity system or to cover the breadth of the department's biosecurity delivery, but it has sought to identify key issues with the operational model as identified by internal and external stakeholders. The chapters that follow focus on 4 key themes that have emerged from stakeholder input:

1. Regulatory maturity
2. Risk pathway partnerships
3. Frontline focus, and
4. Sustainable funding model.

This report does not cover important parts of the overall prevention biosecurity system for which industry or department consultation did not raise significant issues relevant to the scope of this review – for example, travellers. Hence, it samples rather than provides a comprehensive assessment of the breadth of the department's prevention biosecurity functions.

Chapter 2

Regulatory maturity

2.1 Unfinished business – implementation of Biosecurity Act

The *Biosecurity Act 2015* provides a contemporary regulatory framework to manage the risk of pests and diseases entering and becoming established in Australia and causing harm to animal, plant and human health, the environment, the economy and our lifestyle.

The new regulatory framework provided for under the Biosecurity Act was to be implemented by the department in 3 stages over 5 years:

- Stage 1: the period leading up to commencement of the legislative framework on 16 June 2016. This stage focused on implementing priority changes to administrative practices to continue core biosecurity operations upon the commencement of the new legislation
- Stage 2: 17 June 2016 to 30 June 2018. This stage focused on the rollout of delayed, transitional or phased implementation provisions of the legislation, including activities determined as not critical for core biosecurity operations
- Stage 3: commencing in July 2018. The department was to determine the focus of this stage prior to the completion of Stage 2.

An Australian National Audit Office (ANAO) audit report *Implementation of the biosecurity legislative framework* (ANAO 2017a), which reviewed the early implementation arrangements for the new Act, was published in January 2017. The ANAO concluded:

- The arrangements that the Department of Agriculture and Water Resources had established effectively supported the implementation of the new biosecurity legislative framework in accordance with legislated time frames.
- The department established a sound planning approach, governance structure and assurance review program to support the implementation of the biosecurity legislative framework. Nevertheless, issues relating to the delayed establishment of the Biosecurity Projects Implementation Board and weaknesses in performance reporting adversely affected oversight and monitoring arrangements. While the framework started operating on 16 June 2016 as required by legislation, more effective oversight and monitoring would have better positioned the department to deliver framework elements as originally planned. Further, there is scope for the department to review its approach to assessing the benefits to be derived from the new legislative framework.

- The department established arrangements to support the operation of the new biosecurity legislative framework from 16 June 2016 – for example, it developed policy and delegated legislation, created instructional material and delivered training for staff, implemented IT system modifications and engaged with stakeholders. In the main, these arrangements were effective. However, there were delays in finalising a number of key activities. This ultimately reduced the amount of time available to deliver important elements of the program, such as aspects of stakeholder engagement, IT system modifications and training. These delays also led to the reprioritisation of some implementation activities, including instructional material and IT changes, with delivery to occur in later stages.

The original program implementation framework envisaged that solutions relevant to Stages 1 and 2 would be built and optimised in Stage 3 for implementation post commencement. However, Stage 3 was replaced with management arrangements under which remaining activities would be implemented through business as usual arrangements with oversight from the Biosecurity Projects Implementation Board.

A risk that was identified in the *Closure and handover to BAU for the Biosecurity Legislation Implementation Program* (DAWE 2018, p. 18) was that, 'Beyond Stage 2, ongoing activities are not progressed under BAU arrangements'. It appears that, in some instances, project managers had split responsibilities across project delivery and business as usual activities, resulting in resourcing impacts throughout the project life cycle. The assessed risk has materialised in the reduction of a sustained commitment to implementing a new regulatory regime.

During consultations, the Inspector-General noted that in 2016 the department faced an enormous challenge in introducing the Biosecurity Act (a new, 685-page, complex piece of legislation) while maintaining business as usual activities. The department was expected to be ready to implement the Act as rapidly as possible so that there would be operational consistency and management of noncompliance (biosecurity breaches) across all pathways.

Clearly, the department's transformation to the new regulatory regime under the Act has been a much bigger challenge than the department's management estimated at the time, and it has been more difficult than anticipated to sustain the necessary focus and resource allocation. The change of legislation required a massive internal overhaul of policies, procedures, guidelines and training, as well as extensive stakeholder engagement. In particular, the full rollout of education and training at divisional, branch and team levels, after the completion of the macro-level implementation phase, appears to have faltered and been diminished below planned levels.

Not only was the magnitude of this underpinning challenge underestimated but also departmental resources were constrained during the process, as the department was subjected to staff ceilings and recruitment freezes. It is easy to see how operational managers drifted from a sustained commitment to implementing a new regulatory regime, including recruiting and building the necessary staff capability to competently and confidently deliver the updated regulatory regime. The department appeared to prepare well before implementing the new Act; however, over time the focus appears to have blurred.

Broader departmental changes – in particular, reductions to enabling support areas, such as baseline officer training and financial services – also affected delivery. The decision to reduce enabling services in the department has not resulted in efficiencies; rather, it has pushed the work out to operational divisions that were already at capacity. In response to the reduction in a corporate training capacity, Biosecurity Operations Division has had to create a training and development team (along with other enabling functions previously provided by the Canberra-based teams). This means less time and fewer staff available to deliver biosecurity regulatory functions.

Preventative biosecurity management should have asked questions such as: What is a reasonable period for a department of this type, delivering ongoing regulatory obligations, to re-establish an adequate level of 'regulatory maturity' following a major transformation of its underpinning legislative framework?

Whatever the correct answer is, it appears that, due to factors both within its control and outside of it, the department's biosecurity divisions have not reached the level of regulatory maturity (pervasive knowledge, competency, confidence and consistency) necessary for optimal functioning of Australia's lead biosecurity agency. The department's executive leadership during this period appears to have had its eyes and priorities elsewhere, leading to adverse ongoing consequences (mainly for biosecurity delivery areas and biosecurity industry participants).

As part of its strategy to remedy the 2016–2018 failings, when the department is implementing the new regulatory regime it needs to take important learnings from the ANAO performance audit *Australian Border Force's use of statutory powers* (ANAO 2017b). The ANAO highlighted several key components required to ensure the lawful exercise of powers in accordance with the applicable legislation that can be applied to the exercising of powers in accordance with the Biosecurity Act. They include:

- establishing a framework to ensure officers exercise powers lawfully and appropriately
- ensuring that the risk of officers exercising coercive powers unlawfully or inappropriately is included in the department's enterprise risk management framework
- ensuring that controls are effective to mitigate the risk of officers exercising powers unlawfully and inappropriately
- ensuring that all delegations and authorisations for powers are complete
- ensuring that officers can access all legislative instruments
- providing adequate instructions and guidance material for officers on the exercise of their powers and ensuring the accuracy and currency of the material
- ensuring all officers have undertaken prerequisite training.

The Inspector-General's observation from consultations with numerous department officers is that the Biosecurity Act is not viewed sufficiently clearly as the fundamental tool of the biosecurity regulator – one that must be used as approved by the Parliament but that should be improved as needed by the regulator (subject to the Parliament).

Finding

The department did not complete the planned rollout of the *Biosecurity Act 2015* implementation program, leaving managers, technical staff and frontline officers inadequately trained and supported in the delivery of the new regulatory regime.

Finding

The culture of the department and the ongoing cycle of new biosecurity pressures and new government initiatives has generated an environment where the department is much better at starting initiatives and promising improvements than it is at delivering the targeted outcomes and locking in completed reforms.

2.2 Frontline staff under-equipped to apply regulatory powers

It is now clear that 2017–2018 delays encountered in finalising a number of key Biosecurity Act implementation activities, such as the development of policy instructional and training material (EY 2018), impacted frontline biosecurity activities.

Throughout the consultation for this review, it has been clear that too many staff are not equipped with an adequate level of knowledge of the legislation to competently and confidently apply their regulatory powers. It is also clear that the department does not have appropriately aligned functions with a sufficiently strong regulatory culture. This is the result of a range of adverse influences and management missteps.

Training

The department identified that, beyond Stage 2 of the Act's implementation, 'Continued training for staff and industry participants on their roles, responsibilities and contribution to the effectiveness of the biosecurity system' was needed to attain the benefits of the Act (DAWE 2018, p. 7).

Consultation feedback reinforces that the planned Biosecurity Act training was delayed, and support resourcing scaled back, with a compressed time frame to deliver this training to staff (DAWE 2018). During the implementation of the Biosecurity Act, there was not adequate consideration of the length of time needed to ensure program/project deliverables could be delivered (for example, training materials for training sessions) (EY 2018). These factors impacted on the development of staff foundational understanding of their legislative powers under the new Act. Consultation feedback also highlighted that this inadequate foundational understanding has affected staff ability and confidence to make frontline decisions in accordance with the Act.

Finding

Education and training on the new *Biosecurity Act 2015* at divisional, branch and team levels faltered after the completion of the macro-level implementation phase in 2017 and was diminished below planned levels. This misstep by the department has had wide-reaching and ongoing adverse implications for the department and biosecurity industry participants.

Currently, departmental staff who undertake functions under the Biosecurity Act must complete mandatory training. For example, biosecurity officers must complete training on the Act and good decision-making; and face-to-face, online and on-the-job training in biosecurity risk and health and safety risk management (Department of Agriculture 2019a). In 2019 the Biosecurity Operations Foundation Training Program was implemented to target new starters and provide foundational knowledge and skills to enable them to undertake their roles as biosecurity officers.

Instructional material

The need for biosecurity officers to have routine access to high-quality, practical instructional material goes hand in hand with improved training. Consultation for this review raised issues around the complexity, currency and accessibility of the department's biosecurity support materials. This is most clearly illustrated by the current format of instructional material. The material has been developed for process consistency rather than regulatory understanding, as there is no linking of the actions to be taken by an officer to the Biosecurity Act powers they are exercising.

Within a mature regulatory system, regulatory officers need to understand the legislative basis of their regulatory decisions. Therefore, they must fully understand the regulator powers available to them. The training and instructional material weaknesses place unnecessary burdens on frontline officers, who are also being expected to boost capabilities in such skill areas as observation and detection, evidence gathering, and regulation-based judgement.

Based on consultation feedback and available department documents, it is evident that biosecurity officers (as a whole) are not adequately equipped with a prerequisite level of understanding of their regulatory powers and are not supported by appropriate instructional material. This affects their confidence in making decisions under the Act. The feedback also underlined that that this may also lead to regulatory powers being applied inconsistently across the regions in Australia.

Industry has expressed concern about an inadequate level of staff understanding of their regulatory powers and the ability of frontline staff to apply biosecurity regulation consistently across all regions. This observed deficiency increases business costs and may diminish the commitment of some biosecurity industry participants as 'partners in biosecurity risk mitigation'.

Urgent action required

During the consultations for this review it was demonstrated that there is now inadequate staff competence and insufficient confidence in the application of the Biosecurity Act. The department's standing as a regulator is critically impacted by this gap in regulatory knowledge, and it is a serious impediment to achieving regulatory maturity.

The department should redouble efforts to ensure its operational workforce develops a core knowledge of relevant parts of the Act and their regulatory powers so that there is minimal risk of inconsistency and optimised application of the powers made available by the Australian Parliament. A major program has recently been initiated to review the policy and instructional material that supports frontline staff and all biosecurity programs and sections in delivering work outputs. This is a mission-critical initiative. Timely release of a contemporary Regulatory Practice Statement, scheduled for 2020–21, is also essential.

This is important that the department – a science-based regulator – well understands the complex import and logistics sectors in which it has a critical and pervasive regulatory role. However, it is difficult to conclude that the department currently has a sufficiently strong regulatory pedigree. To ensure that the department's 'organisational personality' is that of a regulator, the staff who work as biosecurity regulators must have leadership and support they need for regulatory excellence.

The Inspector-General has welcomed advice from the department's senior management that there is a renewed commitment to regulatory excellence through building regulatory competencies from the foundational level. This new level of commitment of leadership, staff and manager time and support resources must be sustained in order to achieve and maintain the level of regulatory maturity reasonably expected of a major, critical national regulatory agency.

Finding

The department's management has let its frontline officers down by not driving to completion the training programs that were an essential part of enacting and implementing the *Biosecurity Act 2015*. It is essential that senior managers develop an appropriately strong focus on equipping and supporting regulatory excellence in frontline delivery to protect the department, deliver timely regulatory interventions, minimise adverse impacts on clients and minimise the residual biosecurity risk to Australia.

2.3 Compliance management

A mature regulatory system deploys a range of measures to monitor compliance and identify noncompliance. It must also be able to take timely action using all available tools to prevent further noncompliance (often administrative action) and initiate enforcement actions (civil and criminal) as appropriate. The Biosecurity Act provides the department with a range of regulatory tools to encourage (and require) compliance with biosecurity requirements. These tools include:

- increased compliance inspections and/or audits
- enhanced conditions of permits and/or arrangements
- suspension or revocation of permits and/or arrangements
- infringement notices
- civil penalties
- enforceable undertakings
- injunctions
- criminal sanctions
- monitoring and investigation powers.

In many cases, these tools are used in conjunction with powers under the *Regulatory Powers (Standard Provisions) Act 2014*. The Act also included increased penalty levels for serious offences.

During consultation for this review, industry appeared to welcome a more assertive regulatory posture that included a more powerful compliance regime that had appropriately heavy penalties (time and/or financial penalties) for noncompliant businesses and which rewarded those businesses with well-established compliance records. Industry representatives are hardly likely to argue for the department to be a stronger regulator. However, industry leaders do seek:

- greater clarity and consistency from the biosecurity regulator
- greater recognition (reduced intervention or more flexible co-regulatory arrangements) of businesses with good compliance records
- compliance and enforcement action against businesses that are badly or persistently noncompliant.

A key part of compliance strategy planning and implementation is access to timely, practical legal advice. Such advice ensures greater success in biosecurity compliance actions and significantly improves efficient use of compliance and enforcement resources. Feedback to the Inspector-General from a wide range of participants has been that the necessary development of 'operational case studies', 'enforcement strategies and guidelines' and so on that would underpin full compliance and operational implementation of the Biosecurity Act were not developed during 2016–2018 and remain scarce in 2020.

The department's operational officers continue to seek legal interpretation and clarification on an ad hoc basis for matters that should by now be embedded in instructional material and training programs as practical examples of compliance excellence under the Biosecurity Act.

Regulatory immaturity in compliance management is also reflected in the department having policy divisions performing their own administrative compliance activities, including suspension or revocations of permissions. As discussed throughout this report, a fragmentation of the operational model has led to single issue dominance at the expense of the broader system. Specialisation in compliance management is required to establish and maintain a consistent non-compliance risk posture across all biosecurity areas, to avoid single issue responses when the regulated entity has various roles within the biosecurity system, and avoid inconsistent decision-making that creates conflicting precedents that undermine the department's regulatory outcomes.

It is difficult for the Inspector-General to conclude that the department has matured appropriately as a strong, consistent regulator that fully utilises its compliance and enforcement powers. On the contrary: the department appears to be dangerously burdened by historical noncompliance (see, for example, IGB 2019a) that is both:

- a substantial ongoing workload when prevention of new biosecurity breaches is an urgent priority
- a debilitating drag on the department's confidence that it can be a strong, decisive and effective enforcement agency.

A consequence of inadequate regulatory capability build during 2016–2018 is that there has been significant variability between departmental officers and across regions in the application of the same legal obligations, and the department has become more risk averse. Focus also appears to have shifted from managing the biosecurity risks (that is, to achieve better compliance) to legal risks (from client litigation because of defective decision-making). This situation is unhelpful for the department, industry and our nation.

Because of the department's suboptimal regulatory maturity, it has not fully exploited the diverse powers of the Biosecurity Act (which may be substantially different from their application in the *Quarantine Act 1908*). The Inspector-General has previously identified that no infringement notices were issued, or civil penalty proceedings commenced, for noncompliant self-assessed clearance consignments (IGB 2020a) – only letters of warning or letters of action were issued for noncompliant consignments. The Inspector-General recommended (IGB 2020a):

> [Recommendation 23] The department should review its operational program for legal standing and validity to ensure that resources are optimally utilised to manage risks across all pathways.

The department needs to develop an operational policy framework for noncompliance for all biosecurity pathways. The department has an operational policy framework for the issuing of infringement notices and civil penalties in various import pathways, including first points of entry, airports, seaports and cargo. There is currently no equivalent policy framework for imported goods (cargo) (IGB 2020a). The Inspector-General recommended (IGB 2020a):

> [Recommendation 24] The department should develop an operational policy framework for biosecurity officers to exercise regulatory powers to issue infringement notices and civil penalties for non-compliance with provisions under the Act relating to the management of biosecurity risk associated with imported goods.

Finding

The department needs to develop an operational policy framework for noncompliance for all biosecurity pathways.

Finding

The department's current approach to activating and applying the civil penalty provisions of the *Biosecurity Act 2015*, some 4 years in development, is yet to deliver a functioning civil penalty regulatory capability.

2.4 Regulator versus facilitator

It is apparent from both external and internal consultation for this review that there is still a relatively uneven understanding both within the department and across the import sector about the difference between the role of a regulator and the role of a facilitator. This significant confusion exists despite:

- the fact that the department has been operating under the new Biosecurity Act for 4 years, since its 2016 implementation
- publication of the Biosecurity Compliance Statement 2016
- significant recent efforts of biosecurity senior management to clarify and embed a shared understanding of the department's regulatory posture (its overall approach to its regulatory role).

Over the past several decades successive Australian governments have applied a lot of attention to 'reducing regulation' and 'cutting red tape'. The main aspiration has been to unshackle businesses from unnecessary impediments and administrative burdens that impede innovation, growth, job creation and exports.

The Australian Government's published Regulator Performance Framework (Department of the Prime Minister and Cabinet 2014, p. i) was designed to 'encourage regulators to minimise their impact on those they regulate while still delivering the vital role they have been asked to perform'. This framework sought to clarify the roles of regulators and ways to improve the efficiency of regulation without detracting from its designed effectiveness. The framework did not introduce an 'either/or' approach, under which stakeholders could argue that regulators must become facilitators rather than appropriate, efficient and effective regulators (that is, facilitatory regulators to the extent practical). However, that is what appears to have developed for biosecurity, with vocal stakeholders taking encouragement to argue that our nation's biosecurity regulator should become a facilitator.

The confusion of messaging from members of various governments, industry organisations and commentators has provided a smorgasbord from which stakeholders in industry and within government can pick at their convenience. This confused and disparate environment appears to have been to the detriment of both the efficiency and the effectiveness of Australia's biosecurity regulatory services. The result may have been opposite to what was intended for government initiatives aimed at reducing unnecessary impacts of regulation – in this case, a more tentative regulator appears to have become a less efficient regulator.

The Regulator Performance Framework (Department of the Prime Minister and Cabinet 2014) established a set of key performance indicators (KPIs) intended to drive towards efficient regulation, not compromised regulation, and to provide a sound basis for the department and industry to optimise both the efficiency of application of biosecurity regulation (in terms of direct and indirect costs to regulated entities and the department) and to maintain the effectiveness of biosecurity regulation (minimised residual biosecurity risk). The KPIs were as follows:

- **KPI 1** We consider the impacts of our regulation.
- **KPI 2** Our communication with regulated entities is clear, concise and targeted and effective.
- **KPI 3** Actions undertaken by regulators are proportionate to the regulatory risk being managed.
- **KPI 4** Compliance and monitoring approaches are streamlined and coordinated.
- **KPI 5** We are transparent and accountable in the way we administer our regulation.
- **KPI 6** Regulators actively contribute to the continuous improvement of regulatory frameworks.

In 2018–19 the department conducted a self-assessment on performance for biosecurity against the KPIs. The assessment reads well, but it is substantially inconsistent with the industry feedback to this review.

While the policy framework for an improved regulatory environment for Australia may be relatively clear, it is equally clear that its differential communication by government members, parliamentarians more generally, industry organisations and government departments has led to confusion, opportunistic interpretations of the drivers and objectives, and establishment of unrealistic expectations.

Industry representatives recognise that at an individual business and premises level it would be naïve to think that there are no cases of a biosecurity industry participant wanting a regulatory officer to be more helpful. However, no internal or external stakeholder has expressed concerns to the Inspector-General about compromising influences on, or behaviour of, biosecurity regulatory officers.

Confusion about this issue seems to have been created as a result of industry hearing government messaging about 'reduced regulatory burden', 'cutting red tape' and 'facilitating business' but being unable to fully reconcile that messaging with the clear regulatory obligations under the Biosecurity Act.

This confusion may have also been created by departmental staff coming to grips with the complexity of the regulatory regime under the Biosecurity Act, which is in significant areas materially different, and administratively more cumbersome, from regulatory approaches that applied under the previous *Quarantine Act 1908*. When this challenge is combined with the various red-tape reduction agendas, and with significant portfolio pressure to 'protect the agricultural sector from failings of risk creators', it is easy to see why significant variability in the clarity and consistency of application of the regulatory stance could occur across the department.

The Australian Border Force (ABF), which is probably the Australian Government regulatory agency most similar to the department's biosecurity divisions, does not seem to have suffered from the same confusion. ABF appears to be clear in its dual role of border regulator and trade facilitator: 'Our mission is to protect Australia's border and enable legitimate travel and trade. We aim to facilitate the movement of people and goods across the border.' Businesses that deal routinely with the department and ABF processes were prominent in encouraging the department to explore the feasibility of a 'trusted trader' approach to businesses with a good track record of biosecurity compliance.

The review received feedback from staff, and from some industry representatives, about the need for a significant improvement in the department's compliance and enforcement actions against those that have demonstrated noncompliance with biosecurity requirements and obligations. Without this enforcement action, both frontline staff and industry members may be left confused about the apparent ambivalence of senior management to the department's regulatory functions.

Two examples clearly illustrate the positive and negative feedback on this issue:

- Increased inspection, compliance and enforcement action to prevent pork products entering Australia to avert African swine fever entry have been well received by frontline staff. Feedback to staff on the levels and types of pork interceptions in mail, parcels and cargo has been a powerful motivator, as has the revoking of visas for air passengers that have deliberately and seriously breached biosecurity requirements.
- At the other end of the scale, the protracted, laborious progress in delivering significant enforcement action against noncompliant fumigators and other poor-performing approved arrangement operators has conflicted with both government and department messaging about 'strong biosecurity compliance' and with messaging to industry about penalising serious and repeated noncompliance and rewarding businesses with excellent track records of compliance with biosecurity obligations.

Internal and external feedback to the Inspector-General indicates that the department still has significant work to do in this area. The outcome may be optimised by addressing a number of related factors covered in this report rather than by simply ramping up communication of the department's role as a biosecurity regulator. Those factors include:

- a closer working partnership with industry on continuous improvement of biosecurity processes for major risk pathways
- substantial progress on the establishment of a better regulatory delivery ('service') model
- continued training and support material to improve frontline officers' competence and confidence in their regulatory role
- concerted compliance action to address outstanding areas of noncompliance, including those highlighted in former Inspector-General reports.

Generally, industry members link the 'regulator or facilitator' argument to the department's apparent inability and/or unwillingness to deliver more timely services for clearance of consignments. Industry is also frustrated with the department's slowness in implementing noncompliance and enforcement action against businesses with a history of noncompliance. The department processes for issuing show-cause notices and making decisions on suspensions or revocations is regarded to be sluggish, and noncompliant businesses continue to operate as the processes are conducted.

Staff feedback was that they are most comfortable when the department's regulatory function is made clear (biosecurity action is under legislative authority) and fewer problems arise when stakeholders clearly understand this role and responsibility. Most staff respondents to the survey for this review made comments regarding 'regulator versus facilitator' and generally reported a strengthened and clearer regulatory stance over the last 2–3 years. It appears that the department may be starting to find a better balance between being regulators and providing an efficient biosecurity service.

An aspect of frontline biosecurity delivery is that officers can provide biosecurity advice to clients on goods, their processing or management. An officer may charge for that advice as part of the regulatory service delivered. However, workload pressures across frontline operations are likely to limit the extent of this type of 'service', and a departmental desire for consistency in advice to clients (and the capture of the engagement) is likely to result in departmental management limitations on these biosecurity delivery activities.

It is not only industry that needs to understand the biosecurity system; it is equally important that operational and policy officers within the department understand the needs of the department's clients. This type of understanding will assist the department in increasing the quality of its regulatory activities and service provision. It is essential that the department's managers and industry organisations work closely together to find practical solutions in this area.

Finding

Both the suboptimal regulatory maturity of the department and confused communication to frontline staff and the import sector have resulted in inadequate clarity about the department's role as a regulator – demands for greater facilitation have largely resulted from industry frustration about regulatory delivery ('service').

Finding

Industry concerns about regulator versus facilitator will largely abate if the department engages in practical risk pathway partnerships with industry and constructively explores options for improving timeliness of regulatory delivery ('service'). Industry organisations will also become valuable communication conduits for the department, leading to a broader maturity of industry understanding and support for the work of the department.

Recommendation 1

The department should address the major root causes of the 'regulator versus facilitator' confusion – principally through actions that will improve its regulatory maturity and regulatory delivery – and communicate to both staff and industry in practical language its ongoing improvement as Australia's national biosecurity agency.

2.5 Streamlining delivery of regulatory activities

For more than 2 decades, Australia's prevention biosecurity (and other parts of the biosecurity continuum) has been described as a 'shared responsibility', a 'biosecurity partnership' and the like. It is inherent in these descriptions that prevention biosecurity is a two-way street: industry members play their vital role in contributing to Australia's biosecurity risk mitigation; and biosecurity regulators inform industry and provide efficient regulatory delivery with least necessary business disruption.

The streamlining of delivery of regulatory functions is important for industry because of the increased competitive and cost pressures on businesses in the importing sector, exacerbated by the disruptive impact of COVID-19. Consultation feedback has highlighted the need for the department to deliver streamlined and consistent regulatory activities across Australia. Importantly, industry did not argue for a softening of regulatory interventions applied to mitigate biosecurity risks to Australia.

Industry feedback was that the department should partner with industry to identify ways to minimise business disruption by streamlining delivery of biosecurity regulation. Critically, industry representatives argued that disruption and delays to normal business flows were generally more costly (and may be dramatically more costly) than the department's cost recovery fees and charges for regulatory activities. Industry stakeholders outlined a broad collective commitment to pay more where the charges can be matched to mitigation of biosecurity risk and improved timeliness of regulatory processing (generally referred to as 'service'). Several industry stakeholders stated they would prefer to strengthen and streamline their company processes to meet biosecurity requirements by incorporating them into their 'business as usual' practices. This could be achieved via non-regulatory technical advice from the department or involvement in a suitable co-regulatory arrangement.

As part of its strategy to streamline regulatory delivery (including reducing costs for both the department and business), the department should reconsider its observed apprehensive approach to co-regulatory partnerships with industry. Industry representatives have argued that industry organisations and companies are willing to work in a more active partnership with the department to ensure best practice to both manage biosecurity risk and minimise business disruption. For example, where the cost of shipping disruption can be in the mid to high tens of thousands per day, there is strong incentive to mitigate biosecurity risks before presenting consignments for inspection and for close engagement with regulators and technical experts. Disruption to a much smaller business may have a much smaller financial impact but may have equal or greater business profitability and viability implications.

Throughout the consultation, import and logistics sector representatives emphasised the need for national consistency in the delivery of biosecurity. While the most urgent strategy for improving national consistency is the introduction of measures to boost the department's regulatory maturity, improved consistency would be catalysed if the department were to establish national working groups based on pathways and commodities. These working groups should include representatives from all regions and experts from relevant industries to address consistency and efficiency issues and share contemporary knowledge and intelligence.

Finding

Import sector business disruption can be much more costly to businesses than the department's cost recovery fees and charges. This represents a marked change over the past decade and reflects the increased international and local competitive pressures on businesses in the importing sector.

Businesses must focus on achieving biosecurity outcomes to minimise disruption while at the same time meeting significant obligations under the Biosecurity Act. There is a need for a renewed commitment from the department to a productive, mutually respectful partnership with industry in all major risk pathways and in technical and operational areas.

Industry feedback reinforced the message that, to foster an effective biosecurity partnership, the department should demonstrate a reasonable grasp of the realities around business costs and biosecurity requirements. Businesses that have had their operations avoidably disrupted by the department will not be committed to biosecurity outcomes beyond their regulatory obligations.

It is unlikely that businesses will volunteer to pay more, particularly to a government entity, but there has been a clear shift in industry attitude towards biosecurity charges. Businesses value a streamlined, predictable business environment as a priority. If a biosecurity regulatory system could be made available that is responsive and achieves more timely biosecurity delivery with less business disruption, import sector businesses would be willing to assess support for cost recovery increases.

Recommendation 2

The department needs to be clear to governments, industry and staff that its regulatory standards must not be compromised by biosecurity delivery demands, policy priority shifts, staffing limits and other resource efficiency dividends.

Recommendation 3

The department needs to re-establish frontline (risk pathway based) partnerships with industry, with urgent agenda items including streamlining biosecurity risk mitigation through expanded and improved co-regulation arrangements; and modernised cost recovery arrangements for biosecurity regulatory delivery.

2.6 Current efforts to reform

The Inspector-General welcomes evidence of a strong collective commitment from the department's current senior leaders and several significant recent initiatives to address major outstanding weakness in biosecurity regulation (and apparently similar issues that exist in the environmental regulatory functions that are now part of the larger, merged department). The Inspector-General acknowledges important work now underway within the department – in particular, significant efforts to:

- boost maturity of regulatory practice, including establishing a Professional Regulator Capability Framework
- address major weaknesses in the Instructional Material Library and related support systems that provide policies, work instructions and other operational guidance to the frontline officers in regulatory decision-making.

The department should not underestimate or reduce the level of leadership, management and staff resources needed to uplift the department's regulatory maturity (policies, instructional material, legal support, training, verification, leadership and support) to a standard reasonably expected of one of Australia's critically important regulators with broad national responsibilities and reach.

It is pleasing to see the department drawing on work that promotes excellence in regulation, including the 2014 examination of regulatory practice by the New Zealand Productivity Commission (NZPC 2014) and previous Australian examinations of regulatory practice, such as the Woodward review (DAWE 2016) and Moss review (Moss 2018). Publication of a contemporary regulatory practice statement is also scheduled for 2020–21.

The department needs to boost both the amount and practicality of legal input to optimise biosecurity measures, including compliance and enforcement strategies and methods. Legal advice should be sought before those measures are used rather than as they arise. The department should use legal advice practically so that it integrates well with decision-making and policy direction for improved and efficient delivery of regulatory functions. To achieve this, the relevant areas within the department's biosecurity streams need to work collaboratively to be both time and resource efficient rather than leaving biosecurity officers to figure out alternatives without the benefit of the best available expertise across Australia.

A significant and ongoing effort to improve the department's regulatory maturity will strengthen the department's regulatory posture, improve efficiency of regulatory delivery and minimise the likelihood of commercially impractical options being applied, with inevitable delays in the release of consignments. This will, in turn, strengthen the department's partnership with industry and support for compliance and enforcement actions that improve the professionalism of the import sector generally.

Numerous contributors to this review referred to issues with instructional and supporting policy documentation. These issues were starkly highlighted through the Special Commission of Inquiry into the Ruby Princess and follow-up work by the department. This issue is also a key feature of the Inspector-General's parallel review, *Confidence testing for at border delivery of critical biosecurity functions* (IGB forthcoming).

Industry leaders should back the department in its endeavours to address weaknesses in the foundations of its role as Australia's biosecurity regulator, because implicit and explicit impacts on businesses will occur if the biosecurity regulator lacks:

- consistency in regulatory delivery across clients, sectors and regions
- efficiency in conduct of regulatory delivery
- confidence in its ability to complete routine compliance actions and tackle difficult enforcement needs.

It is the Inspector-General's observation that the department's progress in this area will be catalysed by making the relatively modest investment necessary to boost the level of industry engagement covered by recommendations elsewhere in the report.

Finding

The department must address, fully and as a matter of urgency, major deficiencies in the way instructional and supporting policy documentation is developed, approved, stored, updated and made accessible to frontline officers.

Finding

The department is currently expressing the level of management concern, commitment and action that is essential to remedy major deficiencies in the foundation capability of the department to be a high-quality regulator under the Biosecurity Act 2015 in a timely and fulsome manner.

Recommendation 4

The department must apply all necessary commitment to the enhancement and maintenance of its regulatory capability as the foundation to its maturity as a vitally important (and sole) biosecurity regulator for Australia's preventative biosecurity functions.

Recommendation 5

The Inspector-General should review annually, using a standard reporting framework, the progress of the department's strategies to improve its biosecurity regulatory capability.

Chapter 3

Co-regulatory partnerships

3.1 Shared responsibility

Over the past 25 years, the Australian Government has undertaken 3 major reviews of Australia's quarantine and biosecurity arrangements, including partnerships. Most notably for prevention biosecurity (pre-border and at-border), in 1996 Nairn et al. completed a comprehensive review, *Australian quarantine: a shared responsibility*. This was followed by another review in 2008 by Beale et al., *One biosecurity: a working partnership*. Both reviews highlighted that Australia's biosecurity (previously quarantine) system should be shared between the government, business and the Australian community. The 2017 Craik et al. review, *Priorities for the Australian biosecurity system – an independent review of the capacity of the national biosecurity system and its underpinning intergovernmental agreement*, covered the breadth of Australia's biosecurity, dominated by domestic government, industry and community-based programs. It is clear from these extensive reviews that the department must engage with industry as a partner in the management of Australia's preventative biosecurity system.

The department's Corporate Plan 2020–21 recognises the importance of partnership: one of its priorities is to 'Actively pursue ways to better connect with, and understand, our stakeholders partners and communities' (DAWE 2020b, p. 21).

Biosecurity outcomes are best achieved by establishing a genuine shared responsibility and active partnerships between the department and industry. The Inspector-General's consultations for this review identified key partnership improvement areas as:

- businesses working to develop supply chains that incorporate active biosecurity risk mitigations as a standard – for example, the use of biosecurity-related conditions in supplier contractual arrangements
- educating business to mitigate reoccurrence when they make an error or minor noncompliant action
- outlining the department's improvement strategies to businesses and providing an avenue for businesses to provide feedback and suggestions for improvement
- improving data sharing between the department and industry to support industry's business improvements and so that the department can obtain data and intelligence from industry
- providing incentives for businesses which continue to demonstrate a strong compliance track record.

Such a productive ongoing relationship is key to managing and effectively mitigating biosecurity risk in Australia. However, the Inspector-General heard from multiple industry stakeholder representatives that 'shared responsibility' does not appear to operate evenly and openly for the department and businesses regulated under the Biosecurity Act. Some internal input to the review also questioned the level of commitment to, and practical demonstration of, partnership with the importing sector.

3.2 Risk creators or risk mitigation partners

Risk creators with regard to biosecurity may be defined as 'individuals, organisations, industry groups that create risks that may result in a disease or pest entering, emerging, establishing or spreading in Australia; and the disease or pest causing harm to the environment, or economic or community activities'. Feedback to the Inspector-General highlighted that there is significant portfolio pressure to 'protect the agricultural sector from failings of risk creators'. This attitude appears to ignore the Australian agricultural sector's heavy reliance on imported inputs to production.

Import sector consultations identifed that some agriculture and environment stakeholder bodies saw importers inaccurately as the sole risk creators. This has led to importers being viewed negatively, including in media and political spheres. However, many import sector bodies consulted for this review regarded themselves and their members as critical partners in risk biosecurity mitigation rather than risk creators. They were keen to highlight both their important contribution to Australia's economy and employment and their essential and highly committed roles in mitigating biosecurity risks.

It is plausable that the 'risk creator' tag, if inaccurately applied, hinders rather than assists in strengthening Australia's preventative biosecurity arrangements. With notable exceptions (for example, ballast water, hull fouling, on-flight catering supplies), there is the argument that most members of the importing sector and international travel sector do not create biosecurity risk to Australia, although they may at times inadequately mitigate that risk during their stage of the import process.

Over 20 years ago Animal Health Australia and Plant Health Australia were established as partnership organisations between the Australian Government, state and territory governments, and all significant animal and plant industry sectors. These are our nation's largest formal government–industry biosecurity partnerships. The deeds include cost and responsibility sharing deeds for major exotic pests and diseases. There is no similar partnership approach with the import sector. There is a clear opportunity for the government/department to consider formally engaging with the import sector, which has a strong vested interest in the cost-effective mitigation of biosecurity risks. Such a partnership would enable industry organisations representing import sector businesses to be more closely involved in developing improved national approaches, including reform of cost recovery arrangements to ensure that they work in the interest of both the department (for Australia as a whole) and the import sector. The recently established Biosecurity Futures Group, which advises the Minister for Agriculture (and biosecurity), may provide a starting point for an improved partnership with the import sector.

Finding

The 'risk creator' tag is unhelpful when it is applied outside of an identified deliberate attempt to breach Australia's biosecurity measures. Taken to its extreme, all users of imported goods (including the agricultural sector) are 'risk creators' or 'risk contributors'.

Finding

The rhetoric about 'shared responsibility' and 'biosecurity partnership' articulated by the department and the post-border beneficiaries of effective prevention biosecurity measures is not matched by a genuine, practical and sustained commitment to 'partnership'.

3.3 Establishing risk pathway partnerships

In various ways, most import sector organisations made a case that establishing import sub-sector or risk pathway partnerships between the department and industry would improve both biosecurity outcomes and business outcomes.

Industry representation is largely organised either 'along risk pathways' (for example, shipping, cut flowers, ports and vehicle importers) or 'laterally across risk pathways' (for example, freight forwarders). Surprisingly, neither industry stakeholders nor department managers could point to a significant number of current case examples where the department has engaged with industry in a shared commitment to improving biosecurity and business outcomes in a risk pathway or other industry-based sector.

From about 2017, under the 2025 and Beyond initiative, the department sought to embed co-design into the way the department routinely operated with industry. However, the commitment to progressing this approach appears to have waned soon after the initial productive initiatives got underway. Successful work was started with import and export audit harmonisation, but this initiative was not driven to completion. The recent initiative for fresh flower imports is a welcome exception.

Based on the Inspector-General's consultations with the department and industry, it appears that no risk pathways have in place all of the following, which are essential for effective functioning of a department–industry partnership and co-design approach:

- a risk pathway map that identifies the major risk and regulatory intervention points
- a continuous improvement plan or 'road map'
- a practical formal or informal relationship between the department and industry representatives.

During stakeholder consultations, import industry organisations stated that their members have a strong desire to work collaboratively with the department to devise workable and effective solutions for their specific risk pathway or industry-based sector. Industry representatives are seeking an approach based on 'practical co-working groups', not 'information-sharing forums'. Department staff also supported an increase in collaboration with industry groups, as this would assist in co-creation of more cost-effective frontline regulatory delivery and promote buy-in and compliance by biosecurity industry participants.

Finding

It is essential for the department to significantly enhance its industry engagement in cost-effective biosecurity risk mitigation by establishing practical import sub-sector or risk pathway partnership groups focused on optimising the effectiveness of biosecurity risk mitigation, improved cost-sharing and establishing more vibrant information and intelligence exchange.

The surprising trend in department consultative committees for the import sector appears to have been their aggregation rather than a focus on specific-purpose engagement. The number of pathway-specific partnership opportunities seems to have declined in favour of multi-stakeholder consultative committees that can only address limited shared or generic matters – for example, the Industry and Finance Consultative Committee was merged into the Department of Agriculture, Water and the Environment Cargo Consultative Committee (DCCC) in 2019. The peak consultative committee, the DCCC, is well recognised as serving a valuable purpose. However, because of its membership, it cannot get to the level of detail necessary to identify and progress improvement needs in individual import risk pathways. Industry representatives have commented that this change has reduced the department's transparency and visibility and negatively impacted on the department's ability to consult and engage on matters that impact on individual industries and import risk pathways.

It is worth noting that Beale et al. (2008) recommended:

> [Recommendation 24] Commodity and/or sector-based Industry Consultative Committees should continue to discuss operational biosecurity issues including the delivery of services and cost recovery for those services.

Working successfully alongside industry during the latest BMSB season demonstrates that the department can take a strong partnership approach, bringing together experienced industry participants and expert staff from within the department's central and regional offices to develop and apply effective strategies in managing biosecurity risks. The recent establishment of a joint working group for the cut flower import pathway has also been welcomed by industry.

Joint working groups should be established to cover all import pathways. This would enable the department to make more informed decisions while keeping key stakeholders engaged throughout the process. Seeking industry's input to jointly develop solutions to issues would assist the department to apply regulation in an efficient, consistent and predictable way that encourages voluntary compliance. Having industry organisations that actively and positively communicate biosecurity messages and promote the department's work, as well as provide a conduit for industry intelligence about trends, issues and concerns, is likely to be invaluable to the department.

Some industry members supported the establishment of a linked government–industry push to optimise future biosecurity arrangements linked to the minister-appointed Biosecurity Futures Group (particularly under the challenging COVID-19 and post-COVID-19 operating environment).

Finding

In order to achieve the necessary improvements in biosecurity delivery, increased cost recovery and improved industry support for biosecurity risk mitigation, the department and industry must work collaboratively to establish ongoing risk pathway partnership committees, replacing sector-based 'consultative committees' and operating as bilateral improvement (co-creation) working groups.

Recommendation 6

The department should establish commodity and pathway specific working groups for importing sectors, with relevant reporting to an overarching group such as a re-formed Department of Agriculture, Water and the Environment Cargo Consultative Committee (DCCC) and potential linkage to the ministerial Biosecurity Futures Group. All (re-)established groups need a strong focus on co-creation of ways to achieve better biosecurity results more efficiently, with appropriate funding arrangements.

Recommendation 7

The department should provide advice through the Biosecurity Futures Group on options to establish and communicate a contemporary 'biosecurity partnership' approach based on parties at each point in the biosecurity continuum accepting appropriate responsibilities and supporting others in delivering on their contribution to better biosecurity outcomes.

3.4 Biosecurity delivery – minimising business disruption

For a number of years there seems to have been a significant standoff between the department and industry about 'service'. It appears to have been largely based on misunderstanding borne out of inadequate communication on both sides.

During consultations for this review, industry representatives argued that they saw 'service delivery' as the department providing its regulatory functions in a way that would not disrupt import supply chains and individual businesses any more than was essential to achieve biosecurity outcomes. Industry finds it difficult to understand why the department cannot or will not fully deliver timely regulatory activities for which it recovers the full cost. Industry considers that cost-recovered service delivery should involve the effective, efficient and timely delivery of regulatory functions, and the department should work with industry to achieve commercially practical results.

In contrast, the department appears to either avoid using the word 'service' at all (it has been deleted from some corporate documents) or moves discussion about 'service' into a discussion of 'regulator' versus 'facilitator' and similar corporate messaging. The department appears to have regarded 'service' as denoting some form of subservience to businesses/industry, but industry largely sees 'service' as timely delivery of transactional biosecurity clearance functions.

The Biosecurity Regulations 2016 refer to charges for 'fee-bearing activities' (reg 106). These activities include inspections, examinations, audits and assessments, which biosecurity officers are authorised to carry out under the Biosecurity Act. The term 'service' has long been a basis for charging under the Australian Government's Cost Recovery Guidelines. However, the current version of the guidelines specifies that the activities for which government can charge 'may include the provision of goods, services or regulation, or a combination of both' (Department of Finance 2014, p. 3). Within the context of the Biosecurity Act, the department's charging relates to regulation – for example, the inspection of a consignment to assess its biosecurity status. However, for the benefit of effective working relationships, the Inspector-General considers that it should be possible for the department and industry to agree on practical terms that would be used to describe the frontline interaction of the department and businesses – for example, 'biosecurity delivery' or 'biosecurity activity'.

Industry feedback has been that disruption to the normal flow of import supply chains – and, in turn, to individual businesses – is perhaps the biggest business risk resulting from the department undertaking its regulatory function. The direct business costs of the department's cost-recovered activities ('services') is often considered immaterial by comparison. For example, the costs of missing a key seasonal market opening, or being out of stock in a product, and unnecessary delay for perishable goods are much greater than the cost of biosecurity inspections.

Industry rightly views the department as the monopoly provider of biosecurity regulatory activity ('services'); therefore, it has an obligation to provide timely, practical cost-recovered services. Industry representatives have advised the Inspector-General that they require a move towards an at-call service approach for biosecurity services that is 24/7, 365 days a year, to accommodate demand. Biosecurity industry participants believe that the department would probably be able to provide the level of biosecurity services essential for businesses if it did not face staffing caps, recruitment freezes, slow recruitment processes and a management attitude that seems determined to maintain 'regulator distance' and avoid becoming 'service' oriented.

Industry feedback to the Inspector-General has been positive about both the importance of biosecurity to Australia (and the industry and business role in that) and respect for the department's frontline biosecurity staff. The theme of industry comments is reflected in the statement 'we really value the work of the biosecurity officers and understand that they sometimes have to make decisions adverse to our immediate business needs, but we just wish we could have better availability of them'.

In a situation where the department is the only provider of biosecurity regulatory activities, a suitable resolution to ensure timely, efficient biosecurity delivery and regulatory function delivery would be to develop and maintain dynamic, candid and respectful partnerships between the department and industry representatives. This would enable a much better joint understanding of business expectations of biosecurity delivery and the department's regulatory function requirements. The outcome would be that models and solutions could be developed for both businesses and the department which would ensure that biosecurity risk is appropriately mitigated for Australia.

Finding

The current constraints to timely biosecurity delivery must be addressed if biosecurity risks are to be effectively mitigated without exacerbating adverse impacts on the efficiency, costs and profitability of Australia's import sector.

Recommendation 8

To address issues related to timely biosecurity delivery, the department needs to urgently address 2 root causes for suboptimal biosecurity delivery – namely, the level of regulatory maturity and the outdated funding/costing model (see specific sections for more detailed recommendations).

3.5 Accessibility to industry

Industry says that at present it is unable to easily contact the department. Industry representatives expressed concern that the department appeared to have made a conscious decision to use switchboard phone numbers and generic email addresses as a means of discouraging businesses from contacting the department's staff and managers directly. This leaves industry disconcerted about the department's ability to service its stakeholders. They argued:

- Peak industry bodies can act as representatives and a voice for their members and assist in mitigating biosecurity risk if they have direct contact with key department officers. It will assist the department in improving the biosecurity system, give clarity about biosecurity regulation requirements, enable improved information and intelligence sharing, and give clarity around responsibilities between the department and industry regarding biosecurity. The department should learn from the contemporary ways in which other departments and companies deal with their stakeholders and not merely shrink away from the problem.
- Their long-term staff are often more experienced than departmental staff. Businesses operating in Australia have often been running as established businesses for an extended period. As a result, their long-term staff have become proficient in interpreting legislation, import requirements and policies relating to the management of biosecurity specific to their business. The department's (now discontinued) staff rotation policy, which required its staff to work in different areas of the department after having spent a reasonable amount of time in one operational area, and relatively high manager turnover have contributed to this experience disparity.

Consultation also identified the need for rapid advances in co-creation of practical biosecurity solutions that meet the requirements of the Biosecurity Act. This will be best achieved through trusted relationships between the regulator and the industry representatives, with active communication between relevant department and industry managers.

The department should improve its client engagement processes with industry to:

- ensure policies that mitigate biosecurity risks have associated procedures for their implementation
- provide client-centric guidance material to importers on their regulatory obligations – this will support compliance and positive outcomes for the biosecurity system
- build confidence in staff so they are confident in engaging authoritatively on biosecurity requirements and processes with industry participants
- have better escalation processes when clients ring the general enquiry 1800 number
- provide industry organisation representatives with contact details of relevant senior contacts within the technical, operational and policy/strategy areas of the department.

Finding

The department's apparent commitment to and standard of client engagement appears to have regressed rather than improved since the 2012–13 Capability Review conclusion that the department was many years behind best practice in the Australian Public Service.

Recommendation 9

In line with the recommendation to establish practical industry partnership groups based on risk pathways or industry sub-sector, the department should ensure that key personnel from industry representative organisations have direct contact details for relevant technical, operational and policy/strategy managers.

3.6 Co-regulation

On the face of circumstantial evidence to the Inspector-General, currently the department is making efforts to reduce frontline staffing numbers and biosecurity delivery costs ahead of addressing the enablers of change such as expanded co-regulation, strenghthened regulatory maturity, reform of the funding/costing model and more practical industry partnerships. These efforts are likely to both increase costs to import sector businesses and lead to increased residual biosecurity risk. It is argued that better data and intelligence about biosecurity risk presentation will enable the department to better target frontline resources and markedly reduce frontline staffing. However, the resourcing challenge is more complicated than this.

Greater use of co-regulatory arrangements will provide an excellent opportunity to maintain or strengthen compliance with biosecurity obligations while significantly reducing costs to both participating biosecurity industry participants and the department.

There is a need to improve the way that the department uses its co-regulatory powers under the Biosecurity Act. The reform that the department promised and promoted in gaining industries' support for the Act did not eventuate. As highlighted previously, to encourage superior biosecurity behaviour in the import sector, incentives should be made available where they can be reasonably offered. However, the approved arrangements implemented since the commencement of the Biosecurity Act largely mirror those in operation under the *Quarantine Act 1908* and do not adequately support recognition of individualised or systems-based management practices. As a result, the cost and time saving opportunities and the flexibility in the management of biosecurity risk that were predicted for both the importer and the department have not materialised.

As a regulator, the department should do more to encourage industry co-regulation through quality assurance programs to reduce unnecessary regulation. Appropriate co-regulation incentivises businesses to 'own' biosecurity measures and reduces costs incurred due to business disruption, as poor biosecurity measures in the supply chain are not uncommon. Co-regulation and partnerships between industry and the department will also help to strengthen 'shared responsibility for biosecurity' built upon improved ownership and accountability by businesses. This incentivisation approach should include finding ways to achieve overall biosecurity (and cost) benefits by implementing innovative strategies that will achieve more compliant behaviour and impactful disincentives for noncompliant behaviour. However, co-regulation needs to be monitored effectively, with more risk-based targeting and unannounced audits. Higher levels of random inspection of screening activities may be relaxed once a business has demonstrated a high level of compliance.

The department and industry must make a concerted effort to implement integrated biosecurity arrangements for businesses who continually demonstrate good systemic business practices and have a proven history that is actively monitored to ensure ongoing performance. A comprehensive, practical risk profile model should be used to identify importers, brokers and commodities with an excellent track record of compliance. An arrangement of this type, appropriately structured and integrated into the department's biosecurity control framework, would free up biosecurity officer capacity to support activities in areas of higher biosecurity risk, compliance and enforcement, and organisational improvement.

Feedback from industry hailed the department's Imported Food Inspection Scheme (IFIS) as a best-practice example that allows food importers to enter into Food Import Compliance Agreements (FICAs). FICAs are assurance and audit arrangements that formally recognise food importers' management systems and give them alternative arrangements to inspections and testing under the Imported Food Inspection Scheme (IFIS).

Feedback provided to the Inspector-General indicates that the department's historical weakness in advancing compliance and enforcement action against businesses with poor track records of compliance is one of several underlying drivers for the department's reticence to progress more co-regulation. The department needs to address a backlog of poor compliance and enforcement action (IIGB 2015a, IIGB 2016, IGB 2017, IGB 2019a, IGB 2019c, IGB 2020a and IGB 2020b).

Currently, the department talks about mitigating risk offshore or up the supply chain, but the Inspector-General has been given little evidence of practical commitment to this approach. It appears that the department has a clear preference for further overloading onshore inspection areas. More effort should be invested in developing co-regulatory arrangements with industry in order to support systems-based arrangements based on quality assurance and supply chain programs. This will effectively mitigate biosecurity risk without imposing unnecessary regulatory intervention. To achieve this, plant and animal biosecurity divisions will need to show flexibility in their thinking on system-based and non-standard risk mitigation measures that are integrated into businesses' supply chains; and permit and approved arrangement areas will need to comprehensively use the fit and proper person provisions of the Biosecurity Act to ensure the suitability of the entities and relevant others when granting permissions.

The department needs to strike a better balance between facilitating the efficient cross-border movement of goods and ensuring that biosecurity risks are effectively managed. For example, the department has been working very effectively in collaboration with Australia Post to mitigate African swine fever and other biosecurity risks in the mail and parcel pathway. The department cost recovers for the delivery of its biosecurity regulatory function from all entities, including from Australia Post for international mail gateway services. There is an opportunity (and a need) to establish a comprehensive co-regulation partnership with Australia Post.

It has previously been recommended (IGB 2020a, p. 60) that 'The department should engage with the cargo arm of Australia Post in co-regulation of biosecurity measures in the self-assessed clearance pathway. This should include the purchase or leasing, and operation of 3D scanners operated by Australia Post' – subject to agreed standards and audit and verification activities undertaken by the department. This would change the staffing and capital imposts on the department for this pathway, bring it into line with approaches that will need to be taken in other commercial pathways, and reduce the number and scale of requests for budget funding approval.

Industry feedback to this review highlighted that leading businesses well understand the opportunities and responsibilities that are inherent in co-regualtory arrangements. Perhaps the most powerful driver for strong business compliance with co-regulatory obligations is the much-discussed risk of business disruption flowing from biosecurity risk material being detected in their own business or the supply chain beyond the co-regulated business. A range of industry stakeholders said that business disruption from biosecurity problems (or inefficient department biosecurity delivery) had a serious impact and that Australia-based businesses wished to drive risk mitigation earlier (offshore) in supply chains, including by incorporating biosecurity risk mitigation obligations into business-to-business supply chain contracts.

Co-regulation arrangements needs to be effectively monitored, with the department regularly conducting risk-based and unannounced spot audits to monitor performance. Higher levels of random inspection of screening activities may be relaxed once the biosecurity industry participant has demonstrated compliance with their co-regulatory arrangement. Improvements to the level of maturity, auditing, training and IT systems are needed to enable the department to have good verification measures in place to detect noncompliance. This would improve confidence within the department to allow industry to do more under co-regulatory arrangements.

Finding

Leading import sector businesses are advancing significantly faster than the department in technology and interconnected business systems. This underscores the need for a substantial improvement in the department's co-development of contemporary co-regulation arrangements with highly capable businesses with strong compliance track records.

Finding

There are several underpinning drivers for the department's slow progress in advancing co-regulation arrangements, including inadequate regulatory maturity, inadequate willingness to consider alternative risk mitigation measures, weak track record of compliance and enforcement actions against poor-performing biosecurity industry participants, and a resourcing model that does not favour support for co-regulation initiatives to reduce costs for both the department and industry without compromising biosecurity standards.

Recommendation 10

The department needs to engage with import sector representative organisations to identify a priority plan for rollout of expanded co-regulation arrangements. This should be done as quickly as improved resourcing, regulatory maturity, and compliance and enforcement capability allows.

Chapter 4

Delivering on the frontline

4.1 Understanding behavioural drivers

To achieve biosecurity compliance, the department must improve its understanding of import industries and the drivers and incentives of compliance with biosecurity requirements. Beale et al. (2008, p. XXIV) stated:

> The Panel believes that improvements to co-regulatory arrangements for biosecurity services should encourage superior biosecurity behaviour, by importers ... Current arrangements have not recognised exemplary practices for example, by reducing rates of inspection. As a result, cost savings to both the importer and the inspection agency have been foregone. Accreditation of systems which deliver superior performance will free up resources to concentrate on higher risk areas.

The Biosecurity Compliance Statement (2016) outlines the department's approach to compliance management and assumes that most clients will comply, or try to comply, with their biosecurity obligations under the *Biosecurity Act 2015*. The department has committed to releasing an updated Biosecurity Compliance Statement in 2020–21, which should include adjustments in line with a revised outlook to a co-regulary shift with industry partners. However, the department needs to further develop its understanding of the human behaviour aspects of biosecurity. The department has acquired behavioural science staff capability as a result of the recent merger of 2 major departments.

The use of behaviour modification to deliver biosecurity and business benefits is not completely new to the department but requires greater consideration and integration into operational practices. It has been successfully used in Thailand by the motor vehicle importing sector, where industry practices have been modified to reduce biosecurity risk. Industry indicated to the Inspector-General that it wants to expand the 'motor vehicle offshore inspection program' to other major car manufacturing countries that export to Australia, such as Japan and South Korea. Industry is seeking the department's support for this upstream behaviour modification program (influencing manufacturers to manage biosecurity risks at source), which has the potential to deliver onshore biosecurity benefits, and reduction in the supply chain costs.

Understanding industry behaviour is not the only concern for managers of biosecurity risk. Public behaviour also needs to be considered as the consumer's attention shifts more to online markets. Public awareness campaigns educate and raise awareness of biosecurity risks and support the required behaviour change by the public to mitigate biosecurity risk. The department's response to African swine fever included engaging with key industry bodies, including international airlines, tourism agencies, Australia Post, overseas postal services and international authorities, to raise travellers' and mail recipients' awareness of intervention measures. The Inspector-General's review *Adequacy of preventative border measures to mitigate the risk of African swine fever* (IGB 2020b) attributed 'the substantial increase in the proportion of people declaring goods in the traveller pathway to successful campaigns by the department to raise awareness about biosecurity risks of [African swine fever]' (IGB 2020b, p. 56).

The department has previously developed biosecurity awareness campaigns, including *Don't be a Jeff* (DAWE 2020c), *Don't be Sorry, Just Declare It* (Department of Agriculture 2019b), and *Country – Handle with Care* (Department of Agriculture 2019c) campaigns, which inform the public about their role in biosecurity, their responsibilities to manage biosecurity risk and how to report a pest, weed or disease.

The Inspector-General in his African swine fever review report (IGB 2020b) also recommended:

> [Recommendation 9] The department should increase and sustain its awareness campaign in high-risk countries to target the mail and air freight pathways, especially using social media platforms.

It is increasingly clear that communication programs based on whole-of-community (even whole-of-industry) awareness do not effectively target individuals and industry/community cohorts that can most contribute to improved biosecurity success. Campaigns targeted at strengthening prevention biosecurity must, by necessity, target pathways, international travellers and online buyers that can contribute most positively or adversely to Australia's biosecurity status.

Finding

There are both needs and opportunities to improve biosecurity compliance by improving understanding of behavioural drivers and incentives to be compliant with biosecurity requirements on the part of targeted members of the community, from large-scale businesses to online shoppers. Industry members who can contribute most to Australia's preventative biosecurity must be identified as this will maximise the impact of awareness and education campaigns aimed at improving voluntary compliance.

Recommendation 11

The department needs to boost its capability in behavioural science and behavioural economics (internally or by partnership) so that the targeting of communication, co-regulation, and compliance and enforcement strategies can be improved.

4.2 Responsive, not reactive

External and internal stakeholders have described the department (in various ways) as a highly reactive or crisis-driven organisation. This corporate behaviour appears to have several different drivers:

- appropriation – the case for new or additional department resources
- internal strategic resource allocation
- tactical reallocation of resources to deal with surge demands.

Achieving increased funding for program budgets is usually through term-bound appropriations, even for well-established, ongoing biosecurity responsibilities. So departmental staff perceive it necessary to generate a sense of elevated biosecurity risk or crisis to secure funding. It was argued that an example of this pattern of behaviour occurred with African swine fever funding. On 11 December 2019 the Australian Government announced $66.6 million to address the escalating threat of African swine fever to Australia's pork industry (DAWE 2019). The Inspector-General has previously stated that 'Until the fundamental resourcing and operating model for Australia's biosecurity functions is modernised, Australia is likely to experience an ongoing sequence of biosecurity crises such as ASF and BMSB that require specific new funding to be approved' (IGB 2020b, p. 44). This current approach to resourcing has potential to cause instability in the level of management focus on strategic planning and operational delivery, together with confusion among policy, technical and operational staff about departmental priorities.

In one of his previous reviews, the Inspector-General observed that whole-of-biosecurity leadership and teamwork has improved, enabling the department to better address the surge challenges of African swine fever and BMSB prevention. However, a perverse incentive exists for staff and managers in different divisions to elevate the potential threat and risk of pests and disease in their field of endeavour. This may be done with the best intent, seemingly in Australia's interest. However, the need to deal with a large number of pests and diseases with different characteristics – pathways to Australia, micro-detail in identification and prevention measures, and diverse industry and community stakeholders – can lead to persistent internal competition and clamour for resources. Feedback to this review does not indicate a serious error in the prioritisation of serious pest and disease risks, but it is clear that many stakeholders see a substantial waste of resources from this prioritisation churn.

It appears there is a perceived or real need to 'generate a crisis' to secure enough management and staff attention to ensure that significant resources can be reallocated in a timely way to mitigate a new or emerging biosecurity risk. The most obvious example is the response to BMSB – a hitchhiker pest with a wide import-sector impact and serious potential impact for Australia's agriculture. Most internal and external stakeholders appear to judge the BMSB response and ongoing program as a success story that shows the department and industry working together to tackle a major problem. However, participants questioned both the laborious way in which the department dealt with the reallocation of resources (not an agile response) and the department's arguments that it has been able to maintain all critical business as usual functions despite major resource reallocations to manage significant demand surges like BMSB.

While industry was positive about department's responsiveness and its engagement with industry on the implementation of BMSB measures, concerns remain that the inadequacy of departmental resources to handle surges in BMSB had adverse impacts on delivery of service to industry post-border. Industry feedback is that frontline officers are being asked to cover more biosecurity risks, resulting in staff being spread too thin on the ground and unable to provide timely regulatory services. Both industry and department feedback has been that the department's current financial model (discussed in Chapter 5) shifts additional responsibilities to the frontline, which is already struggling to achieve timely biosecurity delivery and address outstanding compliance and enforcement actions.

Finding

Underlying issues in the department's resourcing model and functional structure drive a reactive approach to internal resource pursuit, allocation and reallocation that is adverse to the interests of the department's biosecurity delivery efficiency and effectiveness, the import sector client base, and preventative biosecurity risk mitigation for Australia.

Recommendation 12

The department needs to address the underlying causes of current inadequate biosecurity resource level and inadequate resource agility if it is to improve organisational effectiveness and efficiency that will boost frontline engagement and biosecurity delivery and reduce related risks to Australia's biosecurity status.

4.3 Clarity of responsibility

In October 2020 the department stated that 'embedding shared values and behaviours for us all, fosters a cohesive, united, high-performing team culture which is exactly what we want' (DAWE 2020d). The department's goal is a clear, united front that is future-driven, and this is well intended. However, during consultations the Inspector-General identified several areas of significant external and internal concern about inadequate clarity of responsibility (prior to the present disruptions of the COVID-19 pandemic). Clear, accountable management arrangements that are well understood by all relevant personnel and partners are essential for proper functioning of the biosecurity regulator with national reach and a complex risk and pathway portfolio.

The reason that the department's 'risk owner' model was adopted was to improve understanding of responsibility and accountability of biosecurity executive leadership so that major biosecurity risks in suites of similar risks could be identified and addressed. However, as yet, industry stakeholders have not gained any significant clarity on what this means in practice.

The 'risk owner' model has improved definition of accountability and made senior executive take the lead in providing policy advice for their responsible risks operationally.

However, the model cannot effectively manage many key risks, as most risks are managed collaboratively by one or more biosecurity divisions. The complexity of mitigating major biosecurity risks (technical, regulatory, operational, verification and compliance) and the resulting shared responsibility across biosecurity divisions leads to some ambiguity about who is the 'risk lead' and the 'pathway lead', rather than a 'risk owner'.

The 'risk owner' model appears to make it harder to prioritise biosecurity risks, as it silos risk prioritisation from the perspective of the risk owner. In fact, at an operational level, the system operates by managing the large number of biosecurity risks using a small number of concurrent and overlapping pathway controls. The result is that the accountability between the biosecurity divisions and relevant senior executives is obscured. This is usually the result of risk owners competing against other risk owners/ senior executive for operational resource related to the management of their risks.

In the context of a complex matrix-managed operational environment, the efficacy of the 'risk owner' model is worthy of review. If it is continued, there is still a need for better clarity on the roles and responsibilities of the biosecurity divisions and the relevant senior executive. Some perceive that the 'risk owner' model results in the Deputy Secretary and Secretary (the Director of Biosecurity) being separated from the risks and hence protected from biosecurity failures, but this is clearly not the case.

There seems to be a need for constant re-education to ensure that there is clarity about the responsibilities of the department's managers and biosecurity industry participants, including the responsibilities of individual employees of regulated entities. The department has made significant progress in improving the consistency of delivery of regulatory activities across Australia. For example, it has established job cards, verification processes and National Streams with regionally based Stream Lead roles. However, incidents continue to occur where there appear to be serious weaknesses in clarity of responsibility. The Inspector-General has observed several areas where responsibility has been unclear since well before the COVID-19 pandemic and where the establishment of clear, accountable arrangements could potentially provide sound examples of ways to resolve areas of confused responsibility or non-adoption of responsibility.

Industry representatives asserted that businesses are the 'risk owner' and they will receive penalties if they do not manage and mitigate the biosecurity risk. Under the Biosecurity Act businesses and individuals in industry are generally the primary party with that responsibility. The department's and industry's responsibilities cannot be clearly defined if the department portrays itself as being the primary owner of biosecurity risk. Similarly, industry representatives suggested that the department should not advocate for co-responsibility while keeping biosecurity stakeholders uninformed. Industry expects the department to share information and be transparent and accountable, including optimising the sharing of risk mitigation costs.

Finding

The department has had persistent issues with resource prioritisation and inadequate clarity of accountability for risks and effective delivery of biosecurity outcomes. This is because the department has been strongly focused on the plethora of pest and disease risks rather than on the simpler, more acute areas in which the department's role is expressed – the risk pathways, risk mitigation controls (measures) and biosecurity delivery at the operational interface of the department and import sector businesses and international travellers.

4.4 Realigning risks, pathways and measures as the delivery focus

Biosecurity risks enter Australia primarily through the movement of goods, people and conveyances (vessels and aircraft). The department defines these as pathways and bases most of its biosecurity controls and compliance activities on them. Biosecurity controls consist of a range of measures (either single or in combination) designed to prevent pests and diseases entering Australia (passing biosecurity controls at the border). These controls are applied on every risk pathway (for example, travellers, mail, live horses and containerised sea cargo). Biosecurity measures and risk pathways provide the strongest basis for preventative biosecurity management, including the optimisation of resource allocation (DAWE 2017). (2008, p. XXVI) stated:

> Australia's biosecurity system will be most effective if resources are targeted to those areas of greatest return from a risk management perspective. The application of risk-return principles in managing Australia's biosecurity risks has been inconsistent. Relatively low risk pathways have received an undue share of resources while more threatening risk pathways have been potentially exposed.

The department's business model should be one where 'risk-based knowledge informs biosecurity measures implemented in risk pathways'. In simple terms, the department deals with:

- a very large number of animal, plant and marine/aquatic pest and disease risks
- a discrete number of risk pathways (and import sectors)
- a limited number of measures (that are applied in each pathway, with many measures being effective against a large number of pest and disease risks – for example, X-ray scanning and fumigation).

A fundamental weakness in the department's approach has been its focus on the number and technical complexity of pest and disease risks over the fact that there are only a limited number of measures that can be applied in a limited number of places to mitigate biosecurity risk to Australia. A reality is that the pest and disease threat (number, complexity, evolution, origins, relative global prevalence and so on) will always be complex and only well understood, in relevant part, by highly qualified and experienced technical experts such as those employed within the department's technical/policy divisions. A matching reality is that Australia's prevention biosecurity strategies are built upon a relatively limited and stable set of interventions (measures).

A longstanding distraction has been the belief that resource allocation and reallocation investment decisions can and should be based predominantly on the relative risk of individual pests and diseases. This may be a relevant approach at a macro level – for example, the adequacy of focus on the most serious exotic animal disease, foot and mouth disease; or on a major threat to Australia's largest agricultural industry, khapra beetle, compared with a threat to a minor horticultural crop. Despite the sometimes dramatic changes in the offshore pest and disease threat, the department starts every day with an optimised suite of measures, and these cannot be re-resourced on a whim. The department must shift its approach to one where preventative biosecurity management asks questions such as:

- Are all measures available globally in the department's portfolio?
- Are the right measures being applied in the right places?
- Do the measures optimally cover all priority pests and diseases?
- Are the measures optimally resourced and adjusted?
- Are the measures being applied effectively?

By asking these questions, the department would be able to move to a more appropriate framework for resource management decisions, and the measures-by-pathways resource allocation matrix could be routinely informed through well-defined processes – input could be sought from technical experts, operational staff, industry, the Risk Return Resource Allocation model (RRRA), and independent reviews and verification surveys.

Also, the department would be in a better position to analyse and understand the 'value add' of undertaking various biosecurity measures on risk pathways and make decisions to boost or reallocate resources to ensure specific and overall optimisation of measures to reduce biosecurity risk to Australia. There would be significant improvements in a number of areas, including:

- a marked reduction in the current perpetual internal competition for risk priority and associated management churn which detracts from, rather than improves, the department's capability to mitigate biosecurity risk
- a more appropriate balance and partnership between technical policy-based divisions and operational divisions in optimising resource allocation and resource agility
- a more practical focus on measures that mitigate multiple risks (for example, the interception of meat products to mitigate both African swine fever and foot and mouth disease; fumigation of fresh plant products to mitigate multiple plant pests)
- an ability for departmental senior managers to implement management processes that reflect and reinforce the way preventative biosecurity actually works, which is through optimised measures within risk pathways.

This adjusted approach lends itself much better to both continuous improvement and more productive partnerships with industry (at a risk pathway/import supply chain level).

In the Inspector-General's view, the recommended alterations do not diminish the critical importance of the department's high-quality and well-recognised technical expertise. The department has extensive knowledge and expertise on pests and diseases (including their idiosyncrasies), measures that will work effectively for each, and how the products (such as cut flowers and fruits) will be affected by treatments. This knowledge and expertise is critical for our nation.

The current situation is not the fault of the technical policy experts. Rather, it appears to be because the department has failed to put in place management processes that reflect and reinforce the way preventative biosecurity works – through measures within risk pathways. A more appropriate framework will enable technical specialists to effectively apply their expertise without the competitive churn and internal communication complexities that prevail today.

Finding

The department's current model, under which a focus on the hundreds of animal and plant pest and disease risks dominates in resourcing decision-making, needs to shift towards a more practical, agile resource allocation and reallocation model based on controls (measures) applied in risk pathways.

Recommendation 13

The department needs to change its resource decision-making, and supporting management arrangements, to reflect the reality that a limited number of controls (measures) are available to prevent a large number of pest and diseases and that optimising the controls in all pathways is a better way to optimise preventative biosecurity risk mitigation.

4.5 Sustained staff capability

A frequent topic during consultations was how to ensure that appropriate staff resourcing is available to act on incoming biosecurity threats. It has been argued that government funding pressures have put significant strain on core biosecurity resourcing over a sustained period and that immediate and sustained issues have resulted from this. Craik et al. (2017, p. 137) noted:

> Government biosecurity agencies continue to grapple with a range of funding and investment challenges but are hampered by a lack of reliable and consistent data on core government biosecurity resourcing (overall financial and staffing levels) and a systematic process for determining the appropriate level of resourcing for the national system.

Ensuring appropriate staffing of frontline functions is critical to the department's biosecurity effectiveness. Beale et al. (2008, p. 217) stated:

> In deciding the appropriate staffing levels, consideration should be given to the management load of comparable front-line biosecurity agencies such as the Australian Customs Service.

Both internal and external contributors to this review wondered why the department appeared to have been significantly less successful than some other comparable agencies in matching staffing levels to escalating risks and responsibilities.

During the Inspector-General's internal consultations, the department advised on the challenges of recruiting staff with the required skills, including those who are also inquisitive and can think laterally. The Inspector-General noted the possibility that training in observation and decision-making processes for frontline officers could be provided through police force training programs.

The department has recently boosted its investment in staff training and capability building to address weaknesses in foundation regulatory skills, frontline confidence and national consistency of biosecurity delivery. However, progress appears to be mitigated by several factors. For example:

- Past recruitment has resulted in a number of staff that are not well suited to the current/future biosecurity delivery needs.
- The complexity of the department's Instructional Material Library has burdened frontline staff who lack foundation capabilities required in their role, such as observation, evidence gathering and regulation-based judgement.
- The incomplete rollout of the Biosecurity Act implementation programs has limited the regulatory maturity of the department's biosecurity divisions.

If the department does not receive increases in resource levels, it will need to reduce cost-ineffective activities through greater focus on business and additional support tools that will free up staff capacity. These include:

- the transition to electronic documentation
- the use of digital technology (such as Google™ glasses) for remote inspections
- better IT equipment for recording observations and making decisions
- use of AI tools for document/label scanning and analysis
- a wider adoption of fully cost-recovered functions (for example, semi-permanent bookings rather than manned depots) and co-regulatory arrangements for sophisticated import-sector companies.

The ongoing challenge that many regional frontline staff face is adequate mobile phone network coverage readily available at their operational locations. The geographically dispersed staff need to actively interact with colleagues across Australia via mobile phone, email, Skype™, Microsoft™ Teams and the Biosecurity and Export Risk Tool (BERT). The department needs to investigate solutions to support this means of frontline staff communication.

While connectivity remains a concern for frontline staff, the department has created a number of channels for staff support – for example, frontline staff can approach on-call veterinary officers for advice on phone 24/7, although this can place heavy demands on some expert staff.

Staff can also share issues or seek clarification on issues through BERT. However, the time delay for resolution of many issues/questions is unacceptably long. BERT needs to be developed into a dynamic support tool for frontline staff. A number of frontline managers and staff suggested that an internal peer-to-peer social media style approach would enable staff to rapidly share ideas, issues and questions and seek answers. Alternatively, a support app which contains readily available information and user guidelines could be developed.

Frontline staff usually seek better 'intelligence', while technical policy areas usually seek 'more data'. Hence, frontline officers consider their ability to use free-form data fields to record observations in major department databases to be both practical and valuable. Technical program areas prefer consistency in the way frontline staff record findings and observations within defined data fields of the Agency Information Management System (AIMS) database. However, the department could use this free-form information as 'intelligence' input rather than relying solely on the more rigorous 'data' capture approaches. This intelligence could be very valuable to both technical policy and frontline staff cohorts (particularly if it was routinely collated and analysed using enhanced AI tools).

The Inspector-General has no jurisdiction or interest in management quality, unless a sound conclusion can be reached that the ways in which the department structures and manages lead directly to reduced capability and effectiveness in mitigating Australia's biosecurity risk. Based on the diverse feedback to this review, as well as other observations on the functionality of the department, it appears that the physical separation of operational program areas in Canberra from the vast majority of industry activity, industry organisations and operational staff (mainly based regional capital cities) creates an unhealthy gap in the department's biosecurity functions in several ways, including:

- knowledge segregation for decision-making regional-based staff, with most of the operational and technical expertise based in Canberra
- an impairment of intelligence sharing and professional development in technical and operational areas due to limited interaction between program areas and frontline staff
- a prolonged career progression gap between high-calibre operational staff in regional capitals and Canberra-based operational programs and senior management. It may be reasonably hypothesised that the relative scarcity of senior managers with strong career pedigrees in regulatory delivery, logistics or business is a result of this separation
- impaired ability of the department to optimally engage industry experts in the development and maintenance of Australia's collective operational biosecurity knowledge.

The Inspector-General concludes that the department cannot most effectively carry out its future biosecurity regulatory responsibilities without a better functional alignment of operational programs and frontline delivery in major regional capitals.

The efficiencies in frontline regulatory delivery that come from workforce multiskilling and mobility do not appear to have been matched by an adequate boost in training. In part, inadequate staff competence and low confidence levels have led to operational inefficiencies and inconsistencies, substandard client-centric delivery and inadequate compliance action. It can be argued that the quality of management/leadership is a significant contributor to inconsistent and inefficient delivery of biosecurity functions by frontline officers.

These deficiencies were highlighted in the internal audit of the Inspection Services Group (ISG) and Audit Services Group (AuSG) competency framework. The audit assessed whether these competency frameworks were adequate to ensure frontline staff were appropriately trained, assessed and accredited to undertake biosecurity operational activities. The audit rated that the 'department's implementation and application of the competency frameworks within ISG and AuSG as "Requiring Improvement"' (DAWR 2019).

The 'national stream' and 'integrated workforce' models are worthwhile reforms of the department's biosecurity system. However, it has become increasingly clear to the Inspector-General (including through internal and external input to this review) that both are:

- incomplete (not pushed through to a nationally consistent (or logical) endpoint)
- seriously weakened by the department's regulatory immaturity.

The 'national stream' and 'integrated workforce' models are further examples of where the department has initiated major change before the foundations of previous change were embedded – in this case, the implementation of the Biosecurity Act. The result is a multi-array matrix management environment where several policy programs, national streams and local operational managers are all seeking to direct and redirect staff priorities.

In this environment, when pressure on frontline inspectors to improve cost recovery is mixed with messaging to strengthen compliance action but also improve client service, the major client-facing staff cohort is left confused and pressured. The most likely external outcomes include increased residual biosecurity risk, poorer business compliance and reduced industry support, all of which are averse to the department's and Australia's interests. It is also increasingly clear to the Inspector-General that the national stream model is hampered by it being another Biosecurity Operations Division leadership/management load rather than part of a broader biosecurity transformation.

The incomplete implementation of the provisions and processes under the Biosecurity Act has led to instructional material being unnecessary complex, outdated and not supported by case examples guided by legal advice.

Finding

Incomplete regulatory maturity and partially implemented national and local operational models have contributed to reduced quality of regulatory delivery in some areas as frontline officers have become generalist inspectors rather than specialists. Expertise has been diluted or lost, leading to inadequate clarity around roles and inconsistency of regulatory delivery and industry engagement.

4.6 Workforce agility and ramp-up capacity

'Workforce agility' describes the ability to rapidly move personnel where there is shortfall in staff resourcing. Consultations identified some gaps in the department's responsiveness to the evolving biosecurity pathway demands; and the speed and efficiency with which it reallocates personnel. A relatively common example is the long delays between announcements of new biosecurity funding and decisions to recruit new staff; and the on-ground operation of those staff following recruitment, training and deployment.

The department has noted that future acquisition of significant additional government funding for biosecurity functions that is not cost-recovered seems unlikely. Further, the cost recovery model is so outdated that it is itself a major limitation to the department's biosecurity delivery capacity and agility. To enable biosecurity risk mitigation in the future, the department must find ways to increase the agility and flexibility of the biosecurity workforce rather than increasing recruiting – for example, by removing the Average Staffing Level cap for core cost-recovered funded staffing. The department needs to invest more in current information systems and co-regulatory arrangements; and embed continuous improvement strategies to enable it to meet biosecurity challenges in the future using a similar or smaller, more agile workforce.

The department also needs to establish the culture necessary to enable it to routinely reallocate resources in an agile way to manage risks along different import pathways and investigate implementing systems which support this agile approach; and also to meet 'surge' demands as and when they happen without the need to withdraw personnel from critical business as usual areas.

Senior biosecurity management should have good line of sight on the fluctuation of risk in areas (pathways; measures) where resources have been shifted in order to manage areas of highest risk. For example, since the implementation of heightened COVID-19 border restrictions on international passenger arrivals, the workload for frontline staff – in particular, at first points of entry – has reduced, as there has been a significant reduction in the number of air passengers and cruise liners have temporarily ceased operations. In contrast, the number of mail articles with self-assessed clearance entering Australia via air mail pathways and the number of transhipments of animals have substantially increased. This change has led to a shift of biosecurity risk in trade pathways. Relatively rapid shifts in trade pathways are likely in future years.

The Inspector-General's consultations with the department indicate that there needs to be a shift to a better skilled workforce that can rapidly move the necessary skillsets to the right place at the required time; a better skilled frontline workforce would underpin the surge capacity needed whenever there is a new biosecurity threat. The department needs to develop and implement these response plans carefully to avoid any further 'change fatigue' from staff given they have worked in a reactive environment for some time already because of rapid, ill-planned changes without adequate and meaningful consultation.

An area of deficiency or transparency at present is the impact on other business as usual areas from the drawing away of significant resources to provide surge capacity for a major new (or emergent) biosecurity threat area. This issue is most obvious for major reallocations such as those for BMSB and African swine fever ramp-ups. However, in some cases the department reallocates resources for smaller responses to address seasonal surges. This is to the detriment of other industry sectors or risk pathways.

The foundation issue here is the outdated cost recovery model. The department exhibits excellent agility in meeting annual surge demand for Valentine's Day (mainly cut flowers through Sydney), peak season for exotic fish imports, and a range of other demands. The cost of reassigning staff to meet this biosecurity delivery demand, including significant travel and accommodation costs, cannot be passed on to the businesses involved (due to the outdated cost recovery model). This means there are fewer funded resources available for functions in other sectors. Similarly, inability to fully cost recover for a 'manned depot' drives the department away from this option even where the company would be prepared to meet the full cost if a mechanism for that transaction existed.

Finding

The root causes of the department's constrained management, resourcing and delivery options must be addressed for the department to be able to maintain the skilled workforce that is necessary to effectively prosecute its current and future obligations as Australia's primary biosecurity agency.

Recommendation 14

The department needs to establish a 3-year plan to address the strategic priorities identified in this review, which will enable the department to optimise staffing levels and capabilities; it should not continue to reduce operational staffing in isolation of underpinning capabilities, as it will result in impeded import trade and exacerbated biosecurity risk.

Chapter 5

Sustainable funding

5.1 Sustainable funding model – an unresolved problem

The department's complex biosecurity funding model, with restrictions on use of cost-recovered versus appropriation sourced funds to conduct different functions, inhibits the effectiveness of the department's operational model, as it imposes limitations – in particular, on workforce agility. Industry also noted concerns that the funding model creates additional administrative burden on the department and leads to perverse outcomes, with the department focusing on functions that can be cost-recovered over those that cannot be cost-recovered.

Biosecurity remains one of the largest cost-recovered functions in the Australian Government. Other areas – most notably, the clearance of air and sea travellers, NAQS and enforcement functions – are funded from government appropriated revenue. The cost-recovered portion of the department's funding is made up of a combination of container levy, 'fee-for-regulatory-activity' and Australia Post international gateway fees. Also, not all pathways have fees – for example, containerised cargo has a levy, whereas self-assessed air cargo does not.

The concept of a sustainable funding model for biosecurity has been raised in review after review for over a decade. In relation to resourcing, Beale et al. (2008) noted:

> The Panel's earlier recommendations will only be effective if the National Biosecurity Authority is adequately resourced and able to adopt a risk-return approach to allocating its resources.

In relation to fees, Beale et al. (2008) noted:

> The way in which fees are determined, and the extent to which AQIS responds to those most sensitive to fee increases, is said to have discouraged investments in training and information technology.

The lack of investment in training and IT are 2 issues of continuing concern that are addressed in this report.

In relation to cost recovery, Beale et al. (2008) noted:

> However, the Panel was told that cost recovery constrains AQIS's ability – both at a program management level and a regional operational level – to redirect resources to manage risks … Programs are tightly defined in terms of the activities that form the basis of a particular set of fees, rather than encouraging efficient and responsive management from a whole-of-organisation perspective.

Similarly, the previous Inspector-General (IGB 2017) recommended:

> [Recommendation 11] The Australian Government should commit to ensuring adequate long-term funding for biosecurity risk management, including border inspections and enforcement. Funding should be linked to growth in imports and biosecurity risks, with cost-recovered functions exempt from efficiency dividends and staff ceilings.

The previous Inspector-General (IGB 2019b) also recommended:

> [Recommendation 14] The Australian Government should commit to ensuring adequate long-term funding for biosecurity risk management, and review biosecurity cost recovery arrangements to ensure that funds raised are sufficient for needed restoration or expansion of other priority frontline, support, system improvement and oversight operations. Funding should be linked to growth in imports and biosecurity risks, with cost-recovered functions exempt from efficiency dividends and staff ceilings.

In 2007 the Ernst & Young review of quarantine and border security strategies and policies noted in relation to several appropriation funded programs (EY 2007):

> In 2005–06, the Airports, Northern Australia Quarantine Strategy and Detector Dog programs were in a 'negative net position', that is their expenditure was greater than revenue.

International mail moved to a cost recovery arrangement in 2015. In 2007–08 government appropriation for international mail was $18.445 million. The current cost recovery fee paid by Australia Post is $15.3 million, or 19% lower than it was in 2007–08. During the intervening 12 years, the character of international mail stream has changed significantly – there has been a decline in volume of letter class mail (where there is a limited ability to include biosecurity risk goods) and a significant increase in the number of small parcels of up to 2 kg (which have the ability to include substantially more biosecurity risk material).

In his recent publication (IGB 2020b, p. 4), the Inspector-General noted:

> In September 2019 the department tested a batch of seized samples of pork products from targeted airports and mail centres. Almost half of the samples tested positive for ASF virus fragments. The majority of positive samples had come through mail facilities.

The Inspector-General made 4 recommendations in the report (IGB 2020b) relating to enhancements in the international mail environment, including:

> [Recommendation 3] The department should increase screening of express mail service and parcels from African swine fever-affected countries (in addition to China) at targeted mail centres. The outcomes should be recorded electronically in a central register to allow for a quick post-hoc analysis to inform relevant policies and operations.

International mail is not the only pathway in which funding arrangements are of concern:

- The cost recovery model and the interplay with internal budgets lead to a perverse outcome that could compromise the biosecurity system. A focus on 'fees for regulatory activity' in the budget resourcing model leads to a focus on fee-generating activities over levy-funded activities (for example, Cargo Container Verification (CCV)).
- For the self-assessed clearance pathway, intervention is still heavily manual and largely unfunded. The apparent shift to the self-assessed clearance pathway with COVID-19 has seen an increased pressure on pre-screening by Biosecurity Operations Division. Pre-screening occurs prior to a self-assessed clearance entry being

formally upgraded to AIMS for a formal assessment. Screening work is currently unfunded. Charging only commences as part of a formal assessment of an upgraded self-assessed clearance.

- For the vessels pathway, the growing risk of pests on vessels and containers (BMSB and khapra beetle) is increasing the reliance on self-report (questionnaires completed by vessel masters), uncharged assessment of questionnaires by port staff (inspectors), inspection intervention (chargeable), and specialist scientific services (largely uncharged). As the biosecurity system relies on self-report by vessel masters, there is strong pressure to not apply full charges for risk management and a lack of capability to charge for operational science support.
- For the traveller pathway:
  - The funding model for traveller screening is focused on throughput rather than biosecurity risk management.
  - The funding for traveller screening was baselined in 2015–16. However, the department is unclear as to what this funding is to cover. The memorandum of understanding (MOU) for services with the Department of Health is broad and does not clearly demarcate services to be provided – the MOU only includes that agencies are responsible for the cost of meeting obligations under the MOU.
  - Cost recovery is relatively minor; however, assessment of import permits and goods at border by inspectors is uncharged due to practical issues with applying the fee for regulatory activity in the airport environment. This is inequitable for other importers.

A sustainable funding model for biosecurity delivery is an issue of long-term concern, and it is a concern that the Inspector-General shares. As the funding model for the international mail environment shows, funding seems to have become decoupled from the practicalities of managing the biosecurity risk. The Inspector-General is concerned that decoupling of risk and funding exists across the bisoecurity system under the current complex funding arrangements.

Finding

The underlying issues in the department's resourcing model and functional structure drive a reactive approach to resource pursuit, allocation and reallocation that is adverse to the interest of the department's efficiency and effectiveness, the import sector client base, and Australia's overall biosecurity risk mitigation.

5.2 Onshore Biosecurity Levy undermined sense of partnership

The Onshore Biosecurity Levy put forward during 2019 was a recommendation of the 2017 independent review of the capacity of Australia's biosecurity system (Craik et al. 2017, DAWE 2020g). The government announced a commitment to the introduction of a biosecurity levy in the 2018–19 federal budget.

Implementation was delayed, allowing government to consider feedback from impacted industry sectors on the proposed levy design. On 11 December 2019, the former Minister for Agriculture announced that the design of an alternative levy would be undertaken in consultation with the importing industry. The levy would be applied onshore to importers who use the biosecurity system.

Following industry consultation and further consideration of the impacts on industry, the Australian Government made the decision to not proceed with the Onshore Biosecurity Levy. Australia's biosecurity system will continue to be funded through existing arrangements.

The levy was strongly criticised by industry contributors to this review, including that the department's approach to the Onshore Biosecurity Levy proposal further undermined the 'shared responsibility' partnership between the regulator and the regulated parties. The levy design process also highlighted that a levy could not be implemented without significant regulatory impacts on the import sector and proposed levy payers.

As many of Australia's import sector business have built up a sound understanding of biosecurity risks, there is a clear commitment to biosecurity and understanding of the biosecurity risks and implications for both the nation and their business of a pest or disease incursion, even though representatives acknowledge that their focus may be either on clients or risks associated with logistics, finance and workplace health and safety of themselves and their employees.

5.3 Landing a future funding model

It is in Australia's national interest to optimise the delivery of biosecurity risk mitigation in the import sector without adverse impacts on businesses resulting from inadequate responsiveness to business needs and inadequate agility between import risk pathways or unnecessary direct cost imposts from inappropriate charge levels or structures.

It follows that it is in the interest of our nation, which is heavily dependent on imports to underpin and enjoy its export success, to have in place the costing, charging and funding arrangements for the import sector that best enable the department to do the biosecurity job the government requires it to do.

The department's recent *Future department review* (DAWE 2020e) should assist in clarifying thinking on the longer term funding requirements of the biosecurity system as management works towards the delivery of its 'four-year excellence horizon'. Many for the key areas addressed in the *Future department review*, including funding, are aligned with those of this review (DAWE 2020e, p. 48):

> The department needs to have a better understanding of the impacts of spending decisions so that it can make better choices about which options will make the largest contributions to deliver against the expectations of Australians and the government.

The lack of a practical and sustainable funding model is having a tangible impact on the department's current and future readiness. For instance, at current funding levels, it seems likely that the department cannot catch up with today's IT/IS needs, let alone future biosecurity information needs, without a significant funding injection or a different paradigm of thinking and strategy. Due to the critical impacts of the department's capability on import sector businesses, the Inspector-General also supports industry representatives being fully involved in the discussion of ways to fund the current and future needs.

The Inspector-General notes the *Future department review* finding that 'there needs to be a discussion about how cost-recovery works and where the balance is for "public value"' (DAWE 2020e, p. 48).

Finding

Urgent modernisation of the department's biosecurity resourcing model (costing, charging, appropriation, allocation and reallocation) is a requirement for the implementation of the essential improvements to Australia's prevention biosecurity functions.

Recommendation 15

The department needs to urgently recommend a process to effectively engage with relevant import sector stakeholders in preparing ground-up, co-developed recommendations for cost recovery reform that would optimise the financial needs of the biosecurity regulator and the affected businesses in the import sector.

Chapter 6

‘Understanding’ – data, information and intelligence

6.1 Practical data capture

Access to comprehensive and reliable data is a foundation for developing good biosecurity intelligence. The Intergovernmental Agreement on Biosecurity review (Craik et al. 2017) identified that in order to make valid comparisons and assessments there must be agreed sources and common data formats; and interoperability of IT systems so that systems can communicate with each other. The Inspector-General also previously identified that improved data capture and analysis would enable the department to move from manual to automatic risk assessments and more effectively target noncompliant and high-risk passengers (IGB 2020a). These data issues are not new, and previous IIGB and IGB audits and reviews have also recommended improvements for intelligence gathering and data management (Appendix B).

The department has significant gaps in data capture, processing and analytical capabilities. Some of its IT systems are more than 25 years old and were primarily designed for transactional processing. Over the years they have been increasingly used and modified to support a range of activities, including profiling, targeting and data and intelligence analysis. The data captured by these systems is of varying quality, there is a lack of data standards across systems, and systems functionality is generally limited in supporting data analysis or new business processes.

In 2015 the department established the Biosecurity Integrated Information Systems and Analytics (BIISA) program as part of the Agricultural Competitiveness White Paper – Biosecurity Surveillance and Analysis initiative (DAWE 2015). The aim of BIISA is to:

- replace the department’s cargo (AIMS) and traveller (mail and passenger system (MAPS)) processing systems
- improve business process efficiency and data quality
- deliver a new application suite that improves the internal approved arrangement assessments and audit activities
- create a single repository of 30 departmental pest and disease lists.

These systems are expected to improve the department’s collection, collation, storage and analysis of data and information in an integrated manner and therefore support improved biosecurity management and enhanced operational and policy decision-making. The BIISA program is expected to be fully implemented by the third quarter of 2021.

In 2017 also as part of the white paper, the department established the Biosecurity Analytics Centre – a centralised business unit that provides an enterprise approach to data management and analytics. The Biosecurity Analytics Centre transforms data into information and biosecurity intelligence and develops reports and data modelling for biosecurity decision-making.

Industry is also developing new approaches that may be of value to the department. A consortium has recently conducted a Trade Community System proof of concept that could be a base information source of the future and from which the department could capture trade data to assess biosecurity threats. The department should continually monitor and assess channels for gathering data to meet current and future biosecurity information needs.

Quality data is essential to running a high-performing department. Improved data acquisition, analysis and availability will better inform the department's evidence-based decisions and optimise the allocation of resources. High-quality data and intelligence would enable the department to improve the performance of policy, program and operations functions.

The *Future department review* (DAWE 2020e) has identified 'data and analytics' as one of the 8 key improvement areas for the department. The review states that the department does not have the systems that provide the right data to support decision-making. The department has identified that investment in 'systems' to improve data and intelligence is crucial to enable it to become 'a digitally enabled organisation'.

6.2 Information management and sharing

The department regularly shares intelligence and information with other countries and with state and territory jurisdictions. For example, the department signed an MOU with New Zealand Ministry for Primary Industries (NZ MPI) in 2014. The department and NZMPI are strengthening their intelligence relationship by developing shared protocols for the dissemination of intelligence products and sharing intelligence – for example, NZMPI provided a series of threat assessments for BMSB and African swine fever to the department. Under the Intergovernmental Agreement on Biosecurity (DAWE 2020f), the Australian Government and state and territory governments agreed to share, with each other and with industry and the community, biosecurity information, data, intelligence and knowledge for the efficient functioning of the national biosecurity system.

Through the Inspector-General's consultations, stakeholders reinforced that the department needs to improve information management and sharing both internally and with industry to strengthen the national biosecurity system.

The department does not have effective partnerships or formal information-sharing arrangements with peak industry bodies and businesses in some pathways (IGB 2020a). Businesses have information from operations overseas that are involved in their supply chain during their routine business. Industry information would support the department's understanding of the supply, logistics and biosecurity situation in overseas countries; and trends and opportunities that may improve at-border risk management. To build more effective partnerships with industry, the department should share appropriate intelligence collected through its own sources with industry to ensure quick action for mitigation of risks entering Australia and improve biosecurity or business outcomes.

Information sharing between the department, industry and other agencies will foster more mature, streamlined biosecurity management. This benefits both the department and industry by promoting cost efficiencies to minimise business disruption and enabling businesses to adjust their focus and commercial communication in their supply chains. The Intergovernmental Agreement on Biosecurity review (Craik et al. 2017, p. 27) stated:

> This maturing of the relationship between industry and governments will result in a far superior national system. However, it requires a cultural change which would see governments committing to better and more open communication and engagement, acknowledging that some issues must be handled sensitively. It would also mean bringing industry and community participants into decision-making processes, noting that a 'seat at the table' brings responsibilities and obligations for non-government participants.

It is critical that the department establish feedback loops to enable information sharing between policy, program and frontline operations areas, and industry. This would have several benefits, including:

- better capture of intelligence and information from frontline staff and industry to improve understanding of risk trends and issues requiring a response
- improved allocation of frontline staff resources and activities based on policy and program intelligence and information
- improved understanding of policy and program areas about what is happening at the border based on operational and industry intelligence and information
- an improved evidence base to support decision-making and policy development.

The Inspector-General considers that the department can significantly improve staff connectivity and information sharing, both between policy, program and frontline areas, and between staff cohorts working around Australia in similar areas of biosecurity delivery. The department should establish communities of practice or working groups using telecommunications technology already available to staff – for example, mobile phone, email, Skype™ and Microsoft™ Teams. This will enable geographically dispersed staff to actively interact and share information with their colleagues across Australia.

6.3 Regulatory and biosecurity intelligence

The department's regulatory intelligence capability building has had some starts and stops over the years as it struggled to find a clear role within a biosecurity system that was at one end focused on science and technical risk and at the other end focused on transactional inspections and programmed audits. As the department's understanding of what drives compliance has developed, the importance of regulatory intelligence to inform compliance activities and regulatory responses has grown.

Biosecurity intelligence relates to biological risk (CEBRA 2020):

> [It involves] the screening of different sources of information for signals of emerging issues, the fostering of foresight activities to help anticipate future problems and the analysis of social networks. Intelligence research develops and tests tools to assist governments and other managers to minimise the threat of future biosecurity incursions …

Biosecurity intelligence supports the department to continually improve its management of pest and disease risks.

The Inspector-General supports the need for improvements to both regulatory and biosecurity intelligence as important components in a future co-regulatory biosecurity system. Active assessment of both the biosecurity risk and the entity threat will be important for ensuring the effectiveness of the system.

Consultations also highlighted some significant impediments to the delivery of these intelligence services at the level required. The deficiencies in intelligence sourcing, utilisation, management and sharing with jurisdictions and industries were specifically highlighted in Inspector-General's consultations, both with industry representatives and departmental staff. In addition, some of the formal submissions to the review also identified the department's IT capability as a weak link in its management of biosecurity intelligence across the continuum. Feedback specifically identified that either:

- the quality of intelligence was inadequate
- the department's 'reactive approach' (see section 4.2) to biosecurity does not appear to provide for smart use of intelligence in formulation or revision/upgrading of existing policies.

The department's Corporate Plan 2020–21 highlights that the department needs to improve its ability to capture, analyse, manage and share data, information and intelligence to better inform decision-making.

Finding

Effective feedback loops between program areas and frontline staff and industry are important to the effective running of the biosecurity system. Knowledge of biosecurity compliance outcomes both serves as a motivator and assists officers and industry in understanding the nature of actual risks in their respective activities.

Recommendation 16

The department should improve the feedback and collaboration between operational, technical and policy areas, which may include establishing community of practice mechanisms, and revamp its use of the Biosecurity and Export Risk Tool (BERT) to drive timely resolution of issues that impede biosecurity delivery and increase residual biosecurity risk.

Chapter 7

‘Mindset’ – continuous improvement and innovation

7.1 Continuous improvement

Through the consultations, both industry and the department input conveyed that the department needs to have a clearer commitment to continuous improvement in priority areas. The department, in partnership with industry, needs to develop a transparent continuous improvement plan or ‘road map’ to deliver good biosecurity outcomes. The Inspector-General observed that, due to commercial pressures, industry has progressed improvements to support their business outcomes more rapidly than the department.

During consultations, industry expressed a strong commitment to delivering good biosecurity outcomes and better business outcomes. It is important that these 2 outcomes are viewed as complementary and necessary. Industry also expressed its willingness to assist the department to undertake continuous improvement to support these twin outcomes.

The adoption of a continuous improvement plan approach, when coupled with the partnership arrangements and pathway committees discussed in section 3.3, will provide a framework within which industry and the department can work collaboratively and practically to improve the biosecurity system.

Industry noted that the department is subject to major government-driven public sector reforms, management and other policy agendas that influence its direction. Wherever possible, industry seeks to be engaged during the policy development, planning and implementation phases of these agendas, to support the delivery of implementable biosecurity outcomes. A recent example of this approach was the involvement of industry in the development of the *Future department review* (DAWE 2020e).

Finding

Collaboration with industry on improvement across different issues and at different levels within the department needs to be continuous, including during the implementation of the recommendations of this review.

Finding

The pathway partnerships approach, and committees and working groups discussed in section 3.3, including the development of an improvement plan or 'road map' reflecting current initiatives, will provide a foundation for continuous improvement collaboration.

Recommendation 17

The department needs to establish sound governance arrangements for continuous improvement programs in areas directly affecting the import sector, with those programs directly involving industry representatives wherever practical.

7.2 Industry and innovation

Industry has adopted technology and innovations to streamline business processes, increase efficiency and minimise logistical and congestion costs. The *Future department review* (DAWE 2020e, p. 40) identified that 'the department does not have the contemporary ICT and data systems that support innovation and improved performance outcomes'. There are opportunities for the department and industry to undertake co-creation and expand their co-regulation arrangements.

The department should have a systematic approach to technology and innovation improvements, including identifying potential advances early on and the legal requirements to support this work. Some contributors have argued that the advent of COVID-19 has advanced the department's use of technology in biosecurity by approximately 2 years. For example, the Assessment and Client Contact group gained agreement from targeted countries to accept electronic export certificates rather than the original hard copy of the certificate, which had to be taken to the department's offices and handed in. However, we should not have to rely on a pandemic to achieve innovation and reform. The department must engage in partnership with industry to identify antiquated and inefficient processes in urgent need of modernisation – for example, the continuing use of carbon paper.

The department has established a Biosecurity Innovation Program that runs an Innovation Challenge, where proposals are invited for new technologies, approaches or innovations that will contribute to the effective management of biosecurity or sustainability of the biosecurity system. Even though the department has been seeking innovations in screening of goods and passengers, drone surveillance and the effectiveness and efficiency of our national biosecurity system, areas that relate to the import sector's operating environment and/or business processes, the department is yet to involve sector partners in this program.

As expressed elsewhere in this report, the department's approach to engagement with industry must be viewed as both integral and critical to the future development of the biosecurity system, particularly where innovation is concerned.

Finding

Industry should be engaged as a genuine partner in innovation, beginning with co-identification of the critical biosecurity system improvements needed. This engagement should not be limited to external submission of innovation ideas as part of funding proposals.

Recommendation 18

The department should consider alternative funding arrangements, including mechanisms to combine government funding with industry co-contribution, to enable the more rapid development and rollout of innovations.

The national biosecurity system is complex and multi-layered. It involves pre-border, border and post-border activities aimed at reducing the risk of biosecurity threats arriving and establishing in Australia. Because of increasing arrival volumes of vessels, goods, passengers and mail, arrangements for intercepting pests, diseases and biosecurity risk material must be constantly reviewed by pathway, intervention measure and specific threats/risks to ensure that effort is directed to areas of highest risk and that interventions are effective. The Inspector-General currently focuses only on Australia's preventative biosecurity – namely, pre-border and border aspects.

This review has drawn constructive feedback from a diverse range of external and internal stakeholders on improving both the effectiveness and efficiency of Australia's preventative biosecurity arrangements – improvements to the operational model.

Chapter 8
The way forward

The import sector also has a large stake in the impact of the department's preventative biosecurity functions on their businesses and customers and has been candid and constructive in its contribution to this review.

This is not a review of the department's management. It focuses strongly on the ways in which the department's functions are organised and delivered and whether they effectively mitigate biosecurity risks to Australia. In a resource-constrained operating environment, this means that issues of focus, maturity, partnership, sustainability, efficiency and effectiveness have received attention.

In preparing this report, the Inspector-General has noted that a substantial number of relevant recommendations made by previous IIGB and IGB reports have been inadequately addressed by the department through remediation actions. Also, substantive recommendations have been made by major prior reviews, such as the Beale et al. review (2008). If those recommendations were fully implemented, it would have addressed some of the major underpinning causes of biosecurity delivery problems encountered during this review. It was also surprising to note that major conclusions in the department's own 2012–13 Capability Review do not appear to have been addressed in a sustainably impactful way.

The foundation of the current review report has been extensive feedback to the Inspector-General from both external and internal stakeholders that fundamental constraints within the department's biosecurity operational model have adverse impacts. For example, they:

- impede current biosecurity delivery
- weaken the department's regulatory stance and its standing as a confident, capable and efficient regulator
- introduce inconsistencies in biosecurity delivery and unnecessary disruption to important import supply chains for Australia
- inhibit continuous improvement and innovation essential for the department to keep pace with the evolving biosecurity risk and operating environment
- diminish the national return from the efforts of the large, highly committed biosecurity workforce and the import sector's supportive biosecurity industry participants

- diminish the advancement of effective co-regulatory arrangements with highly capable companies in the import sector; and engagement of industry organisations in better support of achieving optimal biosecurity risk mitigation for Australia
- cause internal competition and churn within the department that reduces agility to both strategically and tactically redeploy resources to optimally address serious existing and emerging biosecurity risks
- inadequately fund essential frontline biosecurity delivery and support functions and increase business costs within the import sector due to reduced timeliness and quality of biosecurity delivery.

It is the Inspector-General's clear summation that the department has been good at responding to government policy directives and funded policy initiatives, but its track record of seeing major reforms through to finalisation is far from impressive. The Inspector-General makes the observation that most significant reform agendas of recent years are almost certainly destined for non-completion or failure because of the underlying weaknesses or drag on resources created by foundation weaknesses in the department's biosecurity operational model.

Findings have been reached and recommendations made with regard to relevant areas – these are detailed in each chapter of this report. All of the areas highlighted in this report are important for improvements to the operational model and efficient delivery of biosecurity outcomes for Australia.

Finding

A range of issues consolidate to highlight 4 mission-critical reform agendas that the department must pursue with vigour if it is to be capable of effectively meeting the significant challenges of today and the near future (to 2025 and beyond).

The 4 strategic priorities (Figure 1) for the department are summarised as follows:

1. Regulatory maturity (see particularly Chapter 2)
2. Risk pathway partnership (see particularly Chapter 3)
3. Frontline focus (see particularly Chapter 4)
4. Sustainable funding model (see particularly Chapter 5).

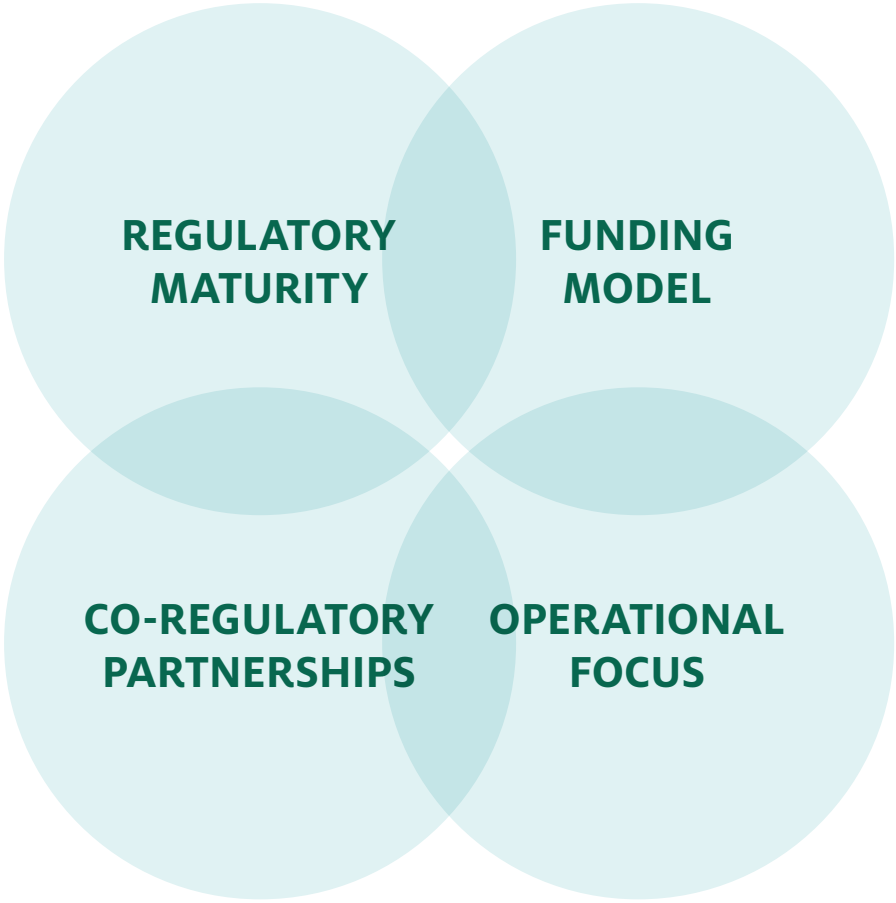
Chapters 6 and 7 of the report address a range of issues raised during the consultation that go to the department's preparedness and capability in addressing the 4 strategic priorities required to modernise its operational model.

Recommendation 19

There are 4 reform priorities that must be progressed concomitantly, with appropriate strategy, resourcing and timelines for each, if the department is going to free itself from current debilitating drag on its performance and set itself on a course to confidently deliver excellent biosecurity outcomes towards 2025 and beyond:

- Regulatory maturity
- Risk pathway partnership
- Frontline focus
- Sustainable funding model.

FIGURE 1 Strategic priorities for Department of Agriculture, Water and the Environment



Regulatory maturity

The first strategic priority is mission-critical in its own right.

Australia's biosecurity framework was updated by enactment of modern legislation (*Biosecurity Act 2015*) that was strongly promoted as providing better regulatory control, across the continuum, than the outdated *Quarantine Act 1908*. However, this review has highlighted serious weaknesses in the final parts of the rollout program, regulatory knowledge base, instructional material, training, and consistent application of the new powers. In order to gain an assessment of the department's level of regulatory maturity, some comparison was made with various maturity models used in different sectors and disciplines. There seems little doubt that the department's maturity level is more in the range 'fragmented-managed' than the desirable range 'integrated-embedded'.

The Inspector-General has observed that the inadequate regulatory maturity of the department's biosecurity functions plays out adversely within the department, adversely affects the importing sector, and is increasing the residual biosecurity risk exposure of Australia in a wide variety of ways:

- insufficient senior management understanding of the powers of the Biosecurity Act and opportunities provided by it compared with the replaced Quarantine Act
- inadequate expert regulatory support capability and capacity
- weaknesses in comprehensiveness, practicality and availability of instructional material
- an inadequate library of legally strong compliance and enforcement strategies and case examples
- inadequate frontline and support personnel training in and knowledge of the relevant details of the complex biosecurity regulatory regime
- insufficient confidence across the department in its biosecurity regulator role and resilience to pressures to become 'facilitators, not regulators'
- inefficient and inconsistent application of biosecurity regulations
- insufficient clarity of accountability of biosecurity industry participants
- unnecessary delays in completion of regulatory delivery and potential delays and additional costs to import sector businesses
- insufficient confidence and consistency in addressing outstanding noncompliance
- overall reduction in efficiency of delivery of Australia's prevention biosecurity functions (pre-border and at-border)
- a less agile and less progressive biosecurity regulatory agency.

Co-regulatory partnerships

To deliver a functional co-regulatory operational model, it is essential to address the second of the 4 priorities.

The concept of and need for co-regulatory partnerships has been central in the 3 major reviews of Australia's quarantine/biosecurity in the last 25 years: Nairn et al. (1996), Beale et al. (2008) and Craik et al. (2017). In 2015, the Biosecurity Act provided a legislative foundation that was far more open than that of the Quarantine Act. This was to support the department in implementing 'shared responsibility'. Despite this direction and the legislative tools to progress co-regulatory partnerships, the framework that the department has delivered remains largely unchanged.

The importing sector representatives commented that agricultural and environment stakeholders still viewed them as the primary 'risk creator' and that this view is also held within different parts of the department. There is a level of distrust, and desire for control, which hinders the development of more expansive co-regulatory partnerships about which Beale et al. reported. The rhetoric about 'shared responsibility' and 'biosecurity partnership' articulated by the department and the post-border beneficiaries of effective prevention biosecurity measures is not matched by a genuine and sustained commitment to 'partnership'.

What the input for this review has clearly highlighted is that this partnership approach requires a significant reset if the parties involved have a genuine interest in optimally mitigating biosecurity risk to Australia. A 'one biosecurity' approach was viewed as necessary at the time Beale et al. conducted their review, and it is now essential for maintaining Australia's strong biosecurity outcomes. The department must significantly enhance its import sector engagement in cost-effective biosecurity risk mitigation through the establishment of practical import sub-sector or risk pathway partnership groups, focused on optimising the effectiveness of biosecurity mitigation, improved cost sharing and establishing more vibrant information and intelligence exchange. These groups need to operate as part of a coordinated approach to addressing enhancements to the biosecurity system and should report to the DCCC and the Minister's Biosecurity Futures Group.

In the face of funding, technology and cargo and traveller volume pressures, the department should be driving to explore enhanced options for co-regulatory partnerships, not pulling away. The Inspector-General concludes that the department's apparent commitment to and standard of client engagement appears to have regressed rather than improved since the 2012–13 Capability Review, which concluded that the department was many years behind best practice in the Australian Public Service. This is not a problem created by frontline personnel; rather, it is a result of the adverse settings highlighted in Chapter 4.

Achieving the necessary co-regulatory and shared responsibility future will require concerted efforts, not just in relation to co-regulation but also in addressing:

- inadequate regulatory maturity
- the level of willingness to openly consider alternative risk mitigation measures
- a weak track record of compliance and enforcement actions against poor-performing biosecurity industry participants
- a resourcing model that supports co-regulation without compromising biosecurity standards.

However, these issues should not be used as an excuse to 'keep doing what we have always done'. Progressive and coordinated change, starting with the implementation of the recommendations of this review, is required.

Frontline focus

The third priority is essential for improved efficiency, effectiveness, and agility of frontline biosecurity delivery. A 'frontline focus' will involve the following elements in this critically important shift for the department:

- addressing the core need for a deep understanding across the department of the criticality of *frontline regulatory delivery*: on planes and vessels; in airports, seaports, mail exchanges, air cargo terminals and freight-forwarding warehouses; in specialist biosecurity facilities; and in uncontrolled areas of Australia's territory
- setting in place changes to ensure that frontline functions and staff that are interacting directly with businesses and individuals are well trained and adequately supported
- locating support functions and staff as close to the biosecurity frontline as is practical, with significantly more support for biosecurity operations based in coastal capital cities
- a leadership and management culture that is founded upon 'pushing support to the frontline' rather than 'what's happening at the frontline?'
- a transformational change in the extent to which and way in which the department engages with the import sector, with a strong focus on co-working groups at sector and risk pathway levels (linked to overarching engagement mechanisms including the Biosecurity Futures Group)
- a major shift in thinking and behaviour away from 'complex individual biosecurity risks' (and responsible personnel) dominating organisational behaviour with a collective focus on optimising 'biosecurity measures (controls) within risk pathways'
- a more balanced and integrated relationship between technical and policy sections and frontline biosecurity operations (which is responsible for most of the external interaction and most staff).

The changes that will flow from a major refocusing in line with the points above will transform the confidence, effectiveness, efficiency and reputation of the department's biosecurity delivery, enhance the efficiency of Australia's import processing, and strengthen overall biosecurity risk reduction.

Sustainable funding model

Without modernisation of the department's biosecurity resourcing model (costing, charging, appropriation, allocation and reallocation), implementation of the essential improvements to Australia's prevention biosecurity functions will be seriously diminished and slowed.

The Inspector-General makes no specific comments about resourcing policies of the current Australian Government, except to note the sensibility of terminating the push to establish a new Onshore Biosecurity Levy in the form proposed, which was strongly opposed by the import sector.

The debilitating and distorting impacts of an outmoded and inappropriate financial model has undermined a substantial number of attempts by the department's biosecurity managers and industry partners to improve the prevention biosecurity system. The current financial model cannot meet the needs of 2020 and progress to 2025 and beyond.

Growth in the real terms quantum of funding, the targeting of its sourcing, and the level of agility of application have not kept pace with the growth and diversity of changes in prevention biosecurity demand. Successive governments have not addressed these issues or the substantive recommendations made by major reviews:

- Beale et al. (2008) made 8 recommendations about funding/resourcing, including cost recovery, that are as relevant to the department today as to the Beale et al. recommended National Biosecurity Authority model.
- The Rural and Regional Affairs and Transport References Committee (2012) recommended that the government give higher priority to funding and implementation of the Beale et al. review reforms.
- The Craik et al. (2017) review, covering the whole Australian biosecurity system, recommended, among other funding changes, the application of at-border levies with resulting funding potentially being directed to post-border biosecurity activities.

The now withdrawn 2019 Onshore Biosecurity Levy proposal, designed to implement at border the relevant Craik et al. (2017) recommendations, received substantial adverse response from the import sector (including feedback to this review). It is hardly surprising that the import sector would be much more amenable to considering levies and other revenue mechanisms that enable the sector to better mitigate biosecurity risk to Australia and their own businesses than they would to funding transfer post-border.

The department periodically updates its cost recovery arrangements, most recently documented in *Cost recovery implementation statement: biosecurity 2019–20* (Department of Agriculture 2019d), but the fundamental constraints of the funding and costing arrangements persist.

Taking heed of the sequence of reviews and reform agendas listed above, it has been surprising to hear so much:

- industry feedback about the need for cost recovery reform, focused around 'service improvement'
- department input focused on under-recovery of costs, outdated delivery programs that are currently not funded by users, distortions to client and organisational behaviour, and impediments to modernisation of biosecurity delivery.

To address the major issues raised, urgent intervention is needed. Effective engagement with relevant stakeholders is required in preparing ground-up, co-developed recommendations for cost recovery reform that will optimise the financial capability of the biosecurity regulator and the affected businesses in the import sector. Critical issues that will need to be addressed include the following:

- cost recovery charges fully recouping the cost of the biosecurity delivery activity, including relevant support costs
- cost recovery mechanisms for manned depots and other arrangements that assist importers to fully recoup all relevant costs
- co-examination with industry sectors to explore ways to optimise biosecurity delivery with minimised disruption to business (which may include additional resourcing, IT investment, technology or other innovation)
- having cost recovery mechanisms available that can fund relevant industry education and training, co-regulation arrangement development and boosted up-chain risk mitigation developments

- establishing the necessary quantum and flexibility of funding that enables rapid establishment of surge capacity and/or agile resource reassignment to emerging risks
- partners with the import sector on co-design of innovation, including funding support
- cost recovery arrangements that fund adequate levels of compliance auditing, verification and enforcement actions.

Having listened to all of the feedback from external and internal contributors to this review, and sought further input from the department, the Inspector-General has concluded the concomitant progression of the 4 strategic priorities set out above are essential if the department is to appropriately fulfil its responsibilities as the national biosecurity regulator for Australia. Failure to initiate and sustain the reforms outlined in this report, in practical ways, will signal that there is insufficient grasp among key decision-makers of the critical national priority of effective biosecurity risk mitigation pre-border and at-border and the associated national need to optimise the efficiency of Australia's import pathways.

This review examined the appropriateness of the department's operational model in delivering preventative biosecurity functions (pre-border and at-border) and makes significant recommendations for improvement. An effective operational model relies on understanding about what is, and is likely to, happen. Without this, the department will be stuck in a constantly reactive cycle, and it is liable to miss opportunities to be proactive and thereby reduce biosecurity risk. The department also needs to refresh its approach to prioritised continuous improvement, innovation and co-creation (internal and external). To achieve the reforms to the operational model described above, both the department and industry will need to build new engagement processes and engage in new dialogue about how 'we' build the future biosecurity system.

This report makes no recommendations on post-border management of biosecurity, as that is primarily the responsibility of other parties, in partnership with the Commonwealth.

Appendix A
Agency response

Australian Government
Department of Agriculture, Water and the Environment

ANDREW METCALFE AO
SECRETARY

18 February 2021

Mr Rob Delane
Inspector-General of Biosecurity
Australian Government Department of Agriculture, Water and the Environment
GPO Box 858
CANBERRA CITY ACT 2601

Dear Mr Delane

Thank you for your letter of 23 December 2020 and for providing your review report, *Adequacy of department's operational model to effectively mitigate biosecurity risks in evolving risk and business environments*, for our response. I appreciate the opportunity to respond to your findings and recommendations and apologise for the delay in providing a formal response.

Your observations align very closely with our own, and those of other recent system commentators.

Since joining the department in February 2020, I have quickly come to fully recognise the major contribution the national biosecurity system makes to our farming systems, the wider economy, our environment, our human health and the social fabric of our country. The value of the system is sometimes overlooked, with public focus and commentary often directed to individual events rather than the bedrock of ongoing effort. As you know the Centre for Excellence in Biosecurity Risk Analysis (CEBRA) has recently placed the net value of the biosecurity system at $314 billion over 50 years.

The biosecurity function within my department is a significant part of this overall national system, with its critical role to prevent and manage biosecurity risk presenting at our borders, whether through regulated ports or less structured movement across our extensive coastline. As you are aware, fully understanding the threats we are facing, ensuring we have effective and efficient controls to mitigate key risks and then verifying they are working day in, day out, are all core components.

This is no small effort.

Last year there were over 8 million container movements into Australia, 19,000 commercial vessel arrivals and 60 million mail items. This is not a system that can be turned on and off, rather one that needs a sustained and responsive attention to the business constantly at hand. For example, while Covid-19 has seen dramatically reduced international traveller numbers, there has been a 58 per cent increase in self assessed clearance items and a 20 per cent increase in imported food lodgements. Overseas disruptions have impacted on offshore inspection and assurance arrangements, increasing the need for border interventions.

It is a strong system, built up over many decades by the hard work and dedication of many people. But it can and must be better. We have and will continue to pivot to these pressures, but our efforts will remain focussed on working smarter. And, as with all systems of its kind, organisational and cultural change takes time and resourcing.

It is also the case that the risks we face are evolving. Even with the impact of Covid-19, we predict a growing and increasingly complex web of geographic and commodity risks to present at our border. Many have already been realised. This is driven by a range of factors from increasingly diverse global value chains, shifting geo-political alliances, a changing climate, the temptation of commercial incentives to disregard the rules - together with the underlying challenges of an extensive natural coastline and an underlying openness in our economy and society to travel and trade.

To ensure we have the best biosecurity system we can in this environment, we will be increasing the tempo of the reform journey that we now have underway.

Your report is therefore very timely in confirming and making transparent many of the key areas in which we need to focus. We need to invest in the regulatory capability and culture of our people, in our enabling systems, in our key partnerships, and in data and technology; all focussed on ensuring biosecurity comes first but in the most cost-effective way possible.

This reform journey means working even more closely with our key stakeholders, whether those in our import supply chains, our producers, our research institutions or our community partners. But resourcing will be needed to continue our transition. As you have recognised, effective partnerships along our import supply chains provide a smart and sustainable way to increase the resourcing dedicated to maintaining our strong biosecurity outcomes.

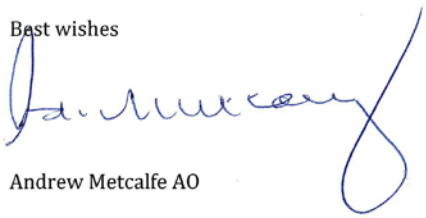
We will be exploring all options to strengthen system funding, including through cost recovery or co-investment models with key partners, to provide a platform for future discussions within government on this matter.

I look forward to continuing engagement with you as we continue this reform journey.

Formal management comments in response to your recommendations are attached, noting we have grouped like matters to provide greater clarity. We do not consider there are matters referenced in your report that would be prejudicial to the public interest and, therefore, consider it can be made publicly available.

Should you require further information or clarification please contact myself, or Josephine Laduzko at Josephine.Laduzko@awe.gov.au.

Best wishes



Andrew Metcalfe AO

Attachment A: Department of Agriculture, Water and the Environment – responses to recommendations

Attachment A – Department of Agriculture, Water and the Environment – responses to recommendations

The national biosecurity system makes a significant contribution to the economy, environment, human health and the social fabric of our country. It protects $6 trillion in environmental assets, $42 billion in inbound tourism. $61 billion in agricultural production, $53 million in agricultural exports, 1.6 million in jobs across the supply chain together with public health and national security outcomes. CEBRA has recently placed the net value of the system at $314 billion over 50 years. It is a key pillar of the Australian Government's Ag2030 agenda and a key part of efforts to improve the efficiency of our trade systems. External stakeholders, including CSIRO, have confirmed its importance in this context.

The Australian Government's biosecurity functions are a critical part of this system. The scale of operations is significant. Last year, there were over 77,000 tariff/country code combinations, 8 million container movements into Australia, 19,000 commercial vessel arrivals and 60 million mail items. This requires a consistent and responsive focus on the business at hand ensuring we are well placed to identify and respond to emerging threats.

Our efforts are strengthened by investment and partnering with industry supply chain participants, state and territory governments, research organisations, producers, natural resource managers and the community at large. This covers the gamut of preparedness, prevention, response and recovery efforts in the face of the significant impacts associated with arrival and establishment of exotic pests and diseases.

The threats the system is facing are evolving. We predict a growing and increasingly complex web of geographic and commodity risks to present at our border driven by factors from increasingly diverse global value chains, shifting geo-political alliances, a changing global climate, growing commercial incentives to disregard the rules to the underlying challenges of an extensive natural coastline and our underlying openness to travel and trade. Covid-19 disruptions will continue to add to this mix as economies and communities look to adapt.

To ensure we have the best system we can in this environment, the department is committed to increasing the tempo of its current reform program, focussed on an investment in the capability and culture of our people; enabling information and management systems; business practices based on better data, screening and diagnostic technology; together with stronger delivery partnerships with industry, state governments and like-minded overseas countries. This effort needs to deliver biosecurity outcomes in an agile and cost-effective manner, accepting that zero risk is not achievable.

This will see the development of a strategic action plan for the next 3-5 years together with efforts toward a national biosecurity strategy with our key stakeholders to ensure critical national biosecurity systems and infrastructure are in place.

This report is a timely confirmation of the importance of this reform agenda. The department agrees with the identified priority reform areas:

1) Regulatory maturity

2) Risk pathway partnership

3) Frontline focus

4) Sustainable funding model.

For ease of reporting, management responses have been grouped to the extent practical.

No.	Recommendations	Department response
Regulatory maturity		
1	*The department should address the major root causes of the 'regulator versus facilitator' confusion – principally through actions that will improve its regulatory maturity and regulatory delivery – and communicate to both staff and industry in practical language its ongoing improvement as Australia's national biosecurity agency.*	Agreed. The Department of Agriculture, Water and the Environment continues to develop and mature its regulatory practice. The department has developed a professional regulatory capability framework to assist staff to develop and build upon the capabilities relevant to staff performing regulatory responsibilities and delivering regulatory services and will be finalising its Regulatory Practice Statement in mid-2021. The statement will provide a public overview of the regulatory stance of the department, including in relation to biosecurity. This will be followed by a departmental compliance policy with a firmer emphasis on our compliance approach, including the obligations placed on the department to deliver biosecurity regulatory services in accordance with legislative requirements. More specifically, the department will be: • agreeing a refreshed biosecurity operating and risk model, including establishing a biosecurity risk committee. • delivering new legal framework training for all biosecurity staff reviewing and revising, as needed, the content and delivery of its instruction material, commencing with maritime pratique • implementing a training college approach for our staff, for industry Authorised Officers and military etc • developing a national operating centre to draw together efforts across pathways and core operational activities • designing and implementing a biosecurity control testing program
2	*The department needs to be clear to governments, industry and staff that its regulatory standards must not be compromised by biosecurity delivery demands, policy priority shifts, staffing limits and other resource efficiency dividends.*	
4	*The department must apply all necessary commitment to the enhancement and maintenance of its regulatory capability as the foundation to its maturity as a vitally important (and sole) biosecurity regulator for Australia's preventative biosecurity functions.*	
5	*The Inspector-General should review annually, using a standard reporting framework, the progress of the department's strategies to improve its biosecurity regulatory capability.*	
8	*To address issues related to timely biosecurity delivery, the department needs to urgently address 2 root causes for suboptimal biosecurity*	

	delivery – namely, the level of regulatory maturity and the outdated funding/costing model (see specific sections for more detailed recommendations).	The department welcomes working with the Inspector-General of Biosecurity on a standard reporting framework in relation to biosecurity regulatory capability. The department is committed to safeguarding Australia's biosecurity consistent with its legislative requirements and international agreements. In doing so it recognises the need to deliver its activities as efficiently as possible and, as recommended below, will be looking to opportunities to delegate biosecurity functions to industry participants, where appropriate to do so, to ensure broader border system efficiencies can be delivered while freeing department staff and resources to higher-risk activity. Service Level Standards remain an issue of interest to import supply chain participants, and their views on cost recovery arrangements, and the Australian Government's commitment to increasing the efficiency of our trade systems to support economy recovery. A review of biosecurity cost recovery arrangements is planned to commence in the 2021-22 financial year. This issue is addressed more fully below. The department notes portfolio budgets, average staffing levels and cost recovery arrangements are matters for the Australian Government.
Risk pathway partnership		
3 **6**	*The department needs to re-establish frontline (risk pathway based) partnerships with industry, with urgent agenda items including streamlining biosecurity risk mitigation through expanded and improved co-regulation arrangements; and, modernised cost recovery arrangements for biosecurity regulatory delivery.* *The department should establish commodity and pathway specific working groups for importing sectors, with relevant reporting to an overarching group such as a re-formed Department of*	Agreed. The department is actively seeking to enhance its co-regulation and partnership arrangements with industry along the supply chain as critical to delivering the agile biosecurity system needed to meet future needs. This will build on successful approaches currently in place, including supply chain certification arrangements and the Authorised Officer/Approved Arrangement model for certain inspection and audit functions. An industry import supply chain roundtable will be conducted early this year to agree further options for industry co-regulation, including approaches adopted during Covid-19, with a view to holding a series of co-design workshops and pilots and, where appropriate, developing detailed business cases for business practice change.

10	*Agriculture, Water and the Environment Cargo Consultative Committee (DCCC) and potential linkage to the ministerial Biosecurity Futures Group. All (re-)established groups need a strong focus on co-creation of ways to achieve better biosecurity results more efficiently, with appropriate funding arrangements.* *The department needs to engage with import sector representative organisations to identify a priority plan for rollout of expanded co-regulation arrangements. This should be done as quickly as improved resourcing, regulatory maturity, and compliance and enforcement capability allows.*	The department employs both commodity and pathway approaches to biosecurity risk management. It uses a variety of channels to engage with stakeholders along pathway and commodity supply chains and is currently considering how these can be expanded or optimised to deliver better outcomes, in consultation with industry. The Biosecurity Futures group, Biological Consultative Group and the Department of Agriculture, Water and the Environment Cargo Consultative Committee employ a successful partnership model with stakeholders to enable the department to develop mutually beneficial solutions to improve biosecurity outcomes and system efficiency. These fora will continue to be an important part of our continuing engagement with all sectors, noting representation and areas of focus may change with emerging priorities. The industry roundtable may give rise to targeted working groups to consider and co-design further options to delegate or partner with industry partners to deliver biosecurity activity.
11	*The department needs to boost its capability in behavioural science and behavioural economics (internally or by partnership) so that the targeting of communication, coregulation, and compliance and enforcement strategies can be improved.*	Noted. The department continues to explore and invest beyond traditional capabilities, including behavioural economics, to develop novel solutions to biosecurity awareness, management and compliance efforts. The department has a dedicated behavioural insights team, which is available to provide advice on the identified matters. This skill set will be used to progress industry-co-design initiatives
7	*The department should provide advice through the Biosecurity Futures Group on options to establish and communicate a contemporary 'biosecurity partnership' approach based on parties at each point in the biosecurity continuum accepting appropriate responsibilities and supporting others in delivering on their contribution to better biosecurity outcomes.*	Noted. The department will be commencing work with government, industry and community stakeholders on a national biosecurity strategy, which will highlight the need for strong partnerships, building on the collaboratively developed National Biosecurity Statement. The ministerial Biosecurity Futures group will be a key source of advice on how best to take forward this initiative, together with options for strengthening industry and community biosecurity awareness and engagement more broadly. This includes opportunities for its members to advocate for this approach.

9	*In line with the recommendation to establish practical industry partnership groups based on risk pathways or industry sub-sector, the department should ensure that key personnel from industry representative organisations have direct contact details for relevant technical, operational and policy/strategy managers.*	Noted, in line with response to recommendation 6. Contact details for technical operational and policy expertise are currently available through the department's website. The department will review this information to ensure ease of location, accuracy and responsiveness.
16	*The department should improve the feedback and collaboration between operational, technical and policy areas, which may include establishing community of practice mechanisms, and revamp its use of the Biosecurity and Export Risk Tool (BERT) to drive timely resolution of issues that impede biosecurity delivery and increase residual biosecurity risk.*	Agreed in principle. The department is seeking to enhance its ability to secure feedback and collaboration amongst its biosecurity operational, technical and policy areas. It currently uses various mechanisms, including internal forums and community of practice models, to encourage and maintain internal connection and collaboration. In additional to highlighted efforts associated with regulatory practice, legal decision making and instruction material, work is commencing in our assurance framework. The department is working toward agreeing a refreshed biosecurity operating and risk model, including establishing a biosecurity risk committee, in the first half of this year.
17*	*The department needs to establish sound governance arrangements for continuous improvement programs in areas directly affecting the import sector, with those programs directly involving industry representatives wherever practical.*	Agreed. The department is developing a refreshed biosecurity operating and risk model, with a potential for structural changes to help deliver outcomes as efficiently as possible. It has also established a biosecurity reform board to support assurance of efforts to deliver key business process enhancements. Industry will be engaged through existing and emerging fora.

13	*The department needs to change its resource decision-making, and supporting management arrangements, to reflect the reality that a limited number of controls (measures) are available to prevent a large number of pest and diseases and that optimising the controls in all pathways is a better way to optimise preventative biosecurity risk mitigation.*	Agreed. The department is committed to a systems-based approach to strengthening its ability to address changing biosecurity risks, and to maximise common and reinforcing control points.
Sustainable funding model		
8* 12 15	*To address issues related to timely biosecurity delivery, the department needs to urgently address 2 root causes for suboptimal biosecurity delivery – namely, the level of regulatory maturity and the outdated funding/costing model (see specific sections for more detailed recommendations).* *The department needs to address the underlying causes of current inadequate biosecurity resource level and inadequate resource agility if it is to improve organisational effectiveness and efficiency that will boost frontline engagement and biosecurity delivery and reduce related risks to Australia's biosecurity status.* *The department needs to urgently recommend a process to effectively engage with relevant import*	Agreed. A formal review of current biosecurity cost recovery arrangements will commence in the 2021-22 financial year, including consultation with relevant import sector stakeholders, who currently pay these fees. This will enable consideration of the appropriateness of the current arrangements in terms of recoverable costs and collection points, consistent with the Australian Government's cost recovery guidelines. The department will also be examining options related to cost-recovery, industry co-investment and budget funding mechanisms, consistent with Australian Government policy in this area, to inform as part of broader efforts toward a sustainable biosecurity funding model that will meet future needs. Co-investment approaches with industry and government partners to enhance border clearance outcomes, such as the roll-out of new screening technology, continue to be progressed. The existing Biosecurity Innovation Program provides opportunity to engage and collaborate with industry to identify technologies that will contribute to the long-term sustainability and effectiveness of Australia's biosecurity system. This will also include consideration of the practical alignment of cost-recovered revenue flows with operational resourcing demands to deliver greater responsiveness.

18	*sector stakeholders in preparing ground-up, co-developed recommendations for cost recovery reform that would optimise the financial needs of the biosecurity regulator and the affected businesses in the import sector.* *The department should consider alternative funding arrangements, including mechanisms to combine government funding with industry co-contribution, to enable the more rapid development and rollout of innovations.*	The department notes portfolio budgets, cost recovery arrangements and average staffing levels remain decisions for the Australian Government.
Frontline focus		
3	*The department needs to re-establish frontline (risk pathway based) partnerships with industry, with urgent agenda items including streamlining biosecurity risk mitigation through expanded and improved co-regulation arrangements; and modernised cost recovery arrangements for biosecurity regulatory delivery.*	Agreed. As identified above, the department is committed to investing in its frontline staff, maturing its regulatory and operating model at the border and progressing sustainable funding outcomes to provide an adequate, efficient and agile response to emerging issues. The department is also actively seeking to enhance its co-regulation and partnership arrangements with industry along the supply chain as critical to delivering the agile biosecurity system needed to meet future needs. This will build on successful approaches currently in place, including supply chain certification arrangements and the Authorised Officer/Approved Arrangement model for certain inspection and audit functions. An industry import supply chain roundtable will be conducted early this year to agree further options for industry co-regulation, including approaches adopted during Covid-19, with a view to holding a series of co-design workshops and pilots and, where appropriate, developing detailed business cases for business practice change. Co-investment approaches with industry and government partners to enhance border clearance outcomes, such as the roll-out of new screening technology, continue to be progressed.
11	*The department needs to boost its capability in behavioural science and behavioural economics (internally or by partnership) so that the targeting of communication, coregulation, and compliance and enforcement strategies can be improved.*	
12	*The department needs to address the underlying causes of current inadequate biosecurity resource level and inadequate resource agility if it is to improve organisational effectiveness and efficiency that will boost frontline engagement*	

	and biosecurity delivery and reduce related risks to Australia's biosecurity status.	
Strategic direction setting		
14	*The department needs to establish a 3-year plan to address the strategic priorities identified in this review, which will enable the department to optimise staffing levels and capabilities; it should not continue to reduce operational staffing in isolation of underpinning capabilities, as it will result in impeded import trade and exacerbated biosecurity risk.*	Agreed. The department is currently determining the strategic direction and priorities for its biosecurity functions over the next 3-5 years, within the context of broader portfolio objectives and outcomes. This will be informed by engagement with key biosecurity system stakeholders and issues emerging in the context of progressing a national biosecurity strategy. The strategic priorities identified in this report will be a key focus for this planning.
19	*There are 4 reform priorities that must be progressed concomitantly, with appropriate strategy, resourcing and timelines for each, if the department is going to free itself from current debilitating drag on its performance and set itself on a course to confidently deliver excellent biosecurity outcomes towards 2025 and beyond:* *1) Regulatory maturity* *2) Risk pathway partnership* *3) Frontline focus* *4) Sustainable funding model.*	Agreed.

Appendix B

IIGB & IGB intelligence gathering and data management recommendations, 2009–20

IIGB and IGB audit or review report title	Date of publication	Observations and suggestions for improvements for intelligence gathering and data management
Effectiveness of biosecurity controls for importing stockfeed of plant origin	2015	The incomplete or incorrect recording of import quantities of stockfeed consignments is due to a lack of appropriate fields for recording inspection results in AIMS, staff errors in not using correct 'free text fields' or 'comment lines' in AIMS or not consistently recording the import permit numbers.
Effectiveness of biosecurity controls for importing stockfeed of plant origin	2015	Department staff should consistently record the import permit number, quantity, consignment description and inspection and testing outcomes (where applicable) of all bulk and bagged stockfeed consignments imported into Australia. This data should be available to assess if policy and regulation effectively address biosecurity risks.
Effectiveness of biosecurity controls for imported fresh cut flowers	2015	Department staff use AIMS to record processes such as entry management, point-to-point movement of imported goods and inspection findings. Any outage to Integrated Cargo System (ICS) or AIMS delays the clearance of cargo.
Effectiveness of biosecurity controls for importation of natural sausage casings	2015	Department staff should routinely record the import permit number and inspection outcomes for all natural sausage casing consignments imported into Australia. This data should be available to assess if policies and regulations effectively address biosecurity risks.
Effectiveness of biosecurity controls for importation of natural sausage casings	2015	Once consignment details are entered by customs brokers, department staff cannot modify the fields to input more useful data. The use of free-text fields and comment lines to record import permit details in AIMS and the lack of a specific tariff code for casings derived from different animal species makes it difficult to obtain reliable data for import quantities.

Management of biosecurity risks associated with timber packaging and dunnage	2016	As part of the department's strategy to improve data capture and assessment of pathway performance, they should consider using information from 'quarantine risk material records' to improve risk profiles.
Pest and disease interceptions and incursions in Australia	2019	The department should improve mechanisms for timely management and sharing of information on interceptions of pests and biosecurity risk material with state and territory government agencies, industry and public and private bodies responsible for biosecurity.
Pest and disease interceptions and incursions in Australia	2019	The department should continue the Biosecurity Integrated Information System and Analytics and develop an extension to the system to enable improved data capture, analysis and reporting on specific pests and diseases risk management and biosecurity risk material.
Effectiveness of approved arrangements in managing biosecurity risks in Australia	2019	The department should develop an easy-to-use digital or app-based reporting system connected to departmental information systems for use by approved arrangements staff and biosecurity officers to record and report details of any biosecurity risk material detections or inspections.

Glossary

ABF	Australian Border Force.
Agriculture Import Management System (AIMS)	A system managed by the Department of Agriculture, Water and the Environment which has records of quarantine entries for goods entering Australia. It provides quarantine management of imported goods and non-commodity items, records the department's decisions and communicates this information to the importer/broker. AIMS is used to: • manage biosecurity and food safety risks associated with imported cargo • track and record imported consignments • assign departmental fees and collect revenue on imported cargo.
Approved arrangement	A voluntary legislative agreement between the department and another party to carry out specified activities to manage biosecurity risks associated with imported goods.
AuSG	Audit Services Group.
Beale review	Independent review of Australia's quarantine and biosecurity arrangements by a panel chaired by Mr Roger Beale AO. The report *One biosecurity: a working partnership* was released by the Australian Government on 18 December 2008.
Biosecurity Act	The *Biosecurity Act 2015* (Cth). Commenced 16 June 2016 and replaced the *Quarantine Act 1908* (Cth).
Biosecurity industry participant	Defined in s 14 of the *Biosecurity Act 2015* (approved arrangement holder). A person who is the holder of the approval of an approved arrangement.
BIISA	Biosecurity Integrated Information Systems and Analytics.
Biosecurity risk	Potential harm to the economy, environment and human health from the negative impacts associated with entry, establishment or spread of exotic pests and diseases.
Biosecurity risk material	Any plant and animal material or inorganic material that is of biosecurity risk or concern.
Biosecurity risk owner	Positions or groups within the department who are the ultimate advisors on managing specific biosecurity risks of different commodities, processes or pathways.
BMSB	Brown marmorated stink bug.
Cargo Compliance Verification (CCV)	A statistical based end-point survey conducted on the containerised (full container load (FCL) and full container load consolidated (FCX)) sea cargo pathway to evaluate the effectiveness of its operational biosecurity controls. These controls include community protection profiles, document assessment and broker arrangements.

Compliance	Status whereby all aspects of a product, facilities, people, programs and systems meet regulatory requirements and, where applicable, importing country official requirements.
Department	Australian Government Department of Agriculture, Water and the Environment.
Director of Biosecurity	Secretary of the Australian Government Department of Agriculture, Water and the Environment, responsible for managing biosecurity risks and ensuring Australia's international rights and obligations are met.
Document assessment	Verification of consignment documentation (such as invoices and mandatory declarations) to determine if a consignment potentially contains prohibited goods or biosecurity risk material.
FICA	Food Import Compliance Agreement.
IFIS	Imported Food Inspection Scheme.
Import Management System (IMS)	Departmental system to control and record importations of goods and commodities of biosecurity concern and store and track associated directions that apply to importations, their movements and treatments.
ISG	Inspection Services Group.
IT	Information technology.
IT/IS	Information technology/information system.
Leakage	Biosecurity risk material that is detected during end-point surveys and was not detected by biosecurity intervention processes.
Mail and passenger system (MAPS)	Departmental system used for reporting purposes and record noncompliance information within the airports, international mail, seaports and detector dogs programs.
NAQS	Northern Australia Quarantine Strategy.
Risk mitigation	Implementation of biosecurity risk measures to address a known or foreseeable biosecurity risk.
Risk profiles	Generated by comparing descriptions of self-assessed clearance consignments with a set of profile criteria in the Integrated Cargo System (ICS) to identify potential biosecurity risks.
RRRA	Risk Return Resource Allocation.
Self-assessed clearance	Clearance procedure for imported non-commercial goods that have a value equal or less than A$1,000.
Self-assessed clearance pathway	The movement of imported non-commercial goods via express air courier transportation.
Screening	The use of X-rays, detector dogs and manual inspection to screen international passengers and mail for biosecurity risk material.
Training	Departmental accredited training required by a person associated with the management of biosecurity risk of an approved arrangement.

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