BIOSECURITY IMPORTS LEVY: A WAY FORWARD

Report to the Minister for Agriculture by the Biosecurity Levy Steering Committee

May 2019

Letter of Transmittal

Biosecurity Levy Steering Committee

31 May 2019

Senator the Hon Bridget McKenzie
Minister for Agriculture
Parliament House
Canberra ACT 2600

Dear Minister

We have pleasure in presenting our report on the design of a Biosecurity Imports Levy. The report is unanimously endorsed by all members of the Steering Committee. It reflects the constructive approach evident throughout.

Notwithstanding a number of challenges, which are summarised in this letter and described in detail in the report, the Committee has reached a clear view on the way forward. Importantly, the Committee's position is underpinned by a shared view on the need for increased and sustainable funding to support a strong biosecurity regime in Australia.

Our central challenge has been apportioning the levy across different import pathways and vectors in line with biosecurity risk, and hence fairness (or equity) to levy payers, as our Terms of Reference require. The problem is the absence of authoritative, science-based analysis and advice to guide us.

Over the course of the Committee's deliberations, our thinking evolved significantly. Having reviewed the consultations which followed the 2018 Budget announcement, we concluded that the original design of the levy was unworkable in terms of the party on which imposition was proposed, the collection mechanism suggested, and the resultant burden of the levy.

We received 29 submissions from affected businesses and organisations in response to our widely circulated Discussion Paper. Those submissions, by and large, reinforced the Committee's thinking, as well as providing valuable first-hand information and experience.

A noteworthy aspect to emerge is the strong support that exists throughout the private sector for a robust, effective and adequately funded biosecurity system. In this respect, while most consider that taxpayers generally should have the principal responsibility for funding biosecurity, there is support for an appropriately designed levy – provided it is fair, provided the revenue raised is fully deployed for biosecurity measures (notwithstanding the absence of formal hypothecation), provided those measures are additional to what already exists (that is, the levy does not substitute for existing funding), and provided the new measures are efficient and effective.

A number of concerns are held by Committee members and/or in submissions:

- The task of biosecurity is becoming ever larger and more complex; taxpayer funding has been uneven in recent years, sometimes increasing, sometimes decreasing; cost recovery charges are gradually increasing as a proportion of total funding; we are mindful of the challenge, in a Budget setting context, of ensuring priority for biosecurity against competing demands for taxpayer funds, the risk being that biosecurity funding may be squeezed;
- Most companies involved in the import supply chain make significant investments to reduce or minimise biosecurity risk, often, to be fair, for sound commercial reasons; however, there is probably inadequate appreciation of these efforts, which, unlike cost recovery charges, are not captured by official data;

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- Biosecurity administration can be a productivity barrier if not adequately resourced or efficiently delivered; vessels can be delayed at the berth, causing delays to other vessels and the release of cargo; the cost of these delays (highlighted by Brown Marmorated Stink Bug monitoring) can easily outweigh the cost of a biosecurity levy;
- There is widespread unease that, in the absence of hypothecation, levy funds will not be fully appropriated for biosecurity; experience with the Passenger Movement Charge (where more than $8 of the current $60 charge was explicitly justified for biosecurity purposes) underscores those concerns;
- A compelling list of new biosecurity measures that the levy will fund is not available; some activities identified by the Department seem to be existing programs, while others seem suitable for cost recovery; we understand that the relevant activities will change over time as new threats emerge; in our view, industry acceptance of the levy will require articulation of a credible list of new biosecurity initiatives related to those who will be paying the levy.

To respond to these concerns, we are recommending the establishment of a high-level, expertise-based Biosecurity Advisory Council. This will enhance the "shared responsibility" principle. It will provide more scope for private sector interests, who are increasingly being asked to fund biosecurity operations, to be involved with and influence important biosecurity decisions and, thereby, to assist the Department's efforts and effectiveness. In addition, we are recommending the preparation of an annual Departmental Budget-related Biosecurity Paper to provide a full reconciliation of funding sources and expenditures.

The Committee then turned its attention to collection mechanisms and levy design models. We are firmly of the view, as are virtually all submissions made to us, that the existing Full Import Declaration (FID) is the appropriate mechanism. The FID can cover all cargo (containerised, including air cargo, break bulk and bulk), but not empty containers (a relatively minor drawback). We understand the task of modifying the FID software to accommodate the levy will be a challenge but, given appropriate priority, should be manageable within a reasonable timeframe (especially as a FID charge existed prior to its termination in 2015).

While air cargo was not included in the original Budget announcement, it was recommended by the 2017 Review into the Inter-Governmental Agreement on Biosecurity and has been advocated on equity grounds by almost all submissions we received.

Vessels are already covered by a cost recovery charge, which could be increased if the assessment of biosecurity risk involving vessels deemed it appropriate. The Committee is not supportive of a levy on gross vessel tonnage.

We are not proposing a change to the Passenger Movement Charge, both because of the existing moratorium until 2022, and in view of the earlier comments that more than $8 per passenger (or approximately $200 million per annum in total) should be regarded as a biosecurity-related impost on passengers.

We developed a number of design models for the levy and identified strengths and weaknesses for each against broadly accepted taxation principles (especially equity and simplicity).

However, we kept coming back to the absence of authoritative, science-based, biosecurity risk analysis across the spectrum. If such a matrix were available, the selection of appropriate charge rates would be relatively straightforward. We made requests for such information through the Department, the Inspector-General for Biosecurity, and ultimately to your predecessor as Agriculture Minister.

Faced with the absence of appropriate data, Committee members have concluded that they are not in a position to recommend the specific elements of the levy, even though the broad structure is clear.

Accordingly, we are recommending that the analysis be undertaken – by the Department, the Inspector-General of Biosecurity, and/or the Centre of Excellence for Biosecurity Risk Analysis – as a matter of urgency, following which the levy design can be finalised. An option would be to re-convene the Committee for this purpose if this would assist the process and acceptance of the levy.

The Committee assessed a range of potential levy designs and several are presented in Appendix 6 to the report. Many were clearly rejected, while others merit further consideration once the biosecurity risk data is available. But to reiterate, until the work to produce this information is undertaken, the Committee considered that there was no solid foundation for the selection of a preferred option.

We recognise that this is likely to preclude meeting the current timetable. While regrettable, the reason is clear – and needs to be addressed.

Yours sincerely

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Independent Chair

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Executive Summary

Biosecurity Levy Steering Committee Appointed to Help Design Biosecurity Imports Levy

On 5 March 2019, the then Minister for Agriculture and Water Resources appointed a Biosecurity Levy Steering Committee to make recommendations on the design and implementation of the Biosecurity Imports Levy. This followed widespread concerns about the design and intent of the levy, which was announced as part of the 2018-19 Budget.

The concept of a Biosecurity Imports Levy, was recommended by the 2017 Review into the Intergovernmental Agreement on Biosecurity as a means of strengthening the national biosecurity system. However, the Review did not apportion risk across different entry pathways.

The Levy Should be Simple and Fair, and Relate to Biosecurity Risk

The Committee endorses sentiments expressed by the Government in proposing the levy that risk creators and exacerbators should contribute to paying for biosecurity services. Applying this thinking requires a detailed assessment of the risk attached to the importation of goods and vessels.

It is Vital that Assurances be Provided that Levy Revenue will be Allocated for Biosecurity …

Submissions to the Committee expressed concern that revenue generated through the levy may not be allocated fully for biosecurity purposes. The Committee considers it is vital for the legitimacy of the levy, and consistent with the concept of "shared responsibility", that the Government provides a clear relationship between the revenue raised and the application of funds to biosecurity activities.

… With the Experience of the Passenger Movement Charge Highlighting Industry Concerns …

The Passenger Movement Charge, now $60, is levied on departing passengers (sea and air). An $8 increase in 2001-02 and part of a $2 increase in the 1994 Budget were explicitly justified at the time for biosecurity purposes. This connection has since been lost, with the Passenger Movement Charge now seen as "just another tax". Many businesses, and the Committee itself, are concerned that a similar fate might befall a biosecurity imports levy if safeguards are not imposed.

The Committee's recommendation is for this more-than-$8 Passenger Movement Charge component to be appropriated anew for biosecurity purposes.

… Leading the Committee to Recommend a Biosecurity Advisory Council …

The Committee recommends the appointment of a high-level, expertise-based Biosecurity Advisory Council to enhance the shared responsibility principle and provide more scope for private sector interests to contribute constructively to important biosecurity decisions, including funding and consideration of relative biosecurity risk, and thereby to assist the Department of Agriculture and Water Resources' biosecurity efforts.

… and an Annual Budget-Related Reconciliation of Biosecurity Revenue and Expenditure

A further measure would be for the Department of Agriculture and Water Resources ('the Department') to produce an annual Budget-related paper which would provide a full reconciliation of biosecurity-related revenue and expenditure.

The Appropriate Levy Collection Mechanism is the Full Import Declaration (FID)

In submissions to the Committee, and in earlier consultations, the overwhelming preference was for the existing Full Import Declaration (or FID) to be used as the levy collection mechanism. FIDs cover all cargo (both sea and air, but not empty shipping containers, a relatively minor 7 percent of total sea container arrivals). The Committee agrees with this view.

Applying a Levy

The Committee accepts a levy on containers as there are clearly biosecurity risks associated with them. Most submissions urged the Committee to extend the levy to air cargo. Also, the Committee accepts a levy on break bulk imports as there are biosecurity risks associated with the importation of break bulk items. The Committee has doubts about a levy on inorganic, inert or liquid bulk commodity imports for which the biosecurity risk appears very low to negligible. In addition, some of these bulk commodity imports have a low value relative to their mass, so a significant levy could impair the competitive position of subsequent manufacturing processes based upon them.

Some bulk commodity imports of an organic nature, may warrant the imposition of a levy as the level of biosecurity risk they pose appears much greater.

The Committee has not received convincing evidence on the merits of imposing a levy based on gross vessel tonnage. Overall, the Committee is not attracted to a levy on the arrival of a shipping vessel. Vessels already pay a biosecurity-related (cost recovery) vessel operator charge on arrival; any additional unrecovered biosecurity costs relating to vessels could and should be met by increasing the existing charge.

The Disposition of Biosecurity Risk is Vital to Designing a Levy …

The Committee recognised from the start of its deliberations the imperative of having robust, science-based biosecurity risk assessments to underpin its recommendations for levy design. It reviewed many reports and data related to biosecurity risk and requested science-based advice from the Department to identify relative biosecurity risk generated by the various import pathways.

… But the Relevant Analysis and Information is Not Available at the Present Time:

Regrettably, none of the information available from public sources provides a robust basis on which the Committee can base definitive recommendations regarding the share of the levy that should be borne by different import pathways and vectors. The available information tends to be partial, incomplete and often anecdotal. Given this, it is not possible for the Committee to recommend the allocation of a levy across cargoes and possibly vessels, when the scientific basis of doing so does not appear to exist at the present time.

It Should be Obtained as a Matter of Urgency so that the Committee's Task can be Completed

Therefore, the Committee recommends that this analysis be undertaken as a matter of urgency; the work should be able to be completed within three months or so. The Committee would be open to then being re-convened in order to complete its task, if this would assist the process.

Given that the final levy design is likely to differ from that originally proposed, the Committee considers that completion of a Regulation Impact Statement on the levy would be prudent.

Committee considered alternative options

The Committee considered a range of potential levy designs that would meet the government's revenue target. A subset are described in Appendix 6 to the report.

However, all the alternative options suffer from the absence of any clear and demonstrable basis on which to assess the share that should be contributed from different import pathways.

The Committee sought advice from the then Minister and the Department but was informed that robust, science-based data on the relative risks attached to import vectors and pathways was not available. Until the work to produce this information is undertaken, the Committee considers that there is no solid foundation for the selection of a preferred option.

The Committee has, however, received advice from the Centre for Excellence in Biosecurity Risk Analysis that the information the Committee is seeking should not be unduly difficult to generate.

The Committee is confident that, if this information were to be made available, it could quickly finalise and recommend a preferred levy design.

The Committee also considered recommending an imperfect interim design, which would allow the revenue timetable to be met. This might apply for a 12 months period, and be associated with a legislative sunset provision. During this period, additional analysis could be conducted to provide the necessary matrix of biosecurity risks across vectors and pathways.

The Committee has therefore come to the view that, in the absence of authoritative, science-based advice to identify the quantum and relative biosecurity risk generated by the various import pathways, it is unable to determine an appropriate level for a biosecurity levy to apply to such items. Without such information, the robust basis on which a levy could be based, leading to a definitive recommendation that would enjoy wide private sector support, does not exist. Some of the options discussed in Appendix 6 merit further consideration once the biosecurity risk data is available.

Recommendations

1. The Committee supports the imposition of a levy on the importation of containers (both sea and air) and break bulk items which represent creators or exacerbators of biosecurity risk. Further, there may also be a case for the application of a levy for bulk cargo, especially organic bulk cargo. The quantum of each levy component to be determined dependent on risk, fairness and competitive impact. (Potential levy options are canvassed in Appendix 6.)
2. The levy should be applied via the existing Full Import Declaration, with the Department of Home Affairs being tasked with making the necessary software adjustments promptly.
3. The Department, the Inspector-General of Biosecurity and/or the Centre of Excellence for Biosecurity Risk Analysis should as a matter of urgency undertake a robust, science-based assessment of biosecurity risk across the various vectors and pathways that is sufficiently detailed to enable values to be attached to the levy components identified in this report.
4. The finalised design of the levy should be subject to a Regulation Impact Statement.
5. Rather than the levy being extended to passengers (once the current moratorium expires in July 2022), the component of the Passenger Movement Charge originally justified for biosecurity purposes (more than $8 per passenger) should be appropriated anew for biosecurity purposes.
6. A new levy should not be applied to the arrival of shipping vessels, given that vessels already pay a biosecurity-related (cost recovery) vessel operator charge (plus associated in-office and out-of-office fees) through the Maritime Arrivals Reporting System. Any additional unrecovered biosecurity costs relating to vessels should be met by increasing the existing charge.
7. A high-level, expertise-based Biosecurity Advisory Council should be appointed to enhance the shared responsibility principle of biosecurity, provide more scope for private sector interests to contribute constructively to important biosecurity decisions, including funding and consideration of relative biosecurity risk, and ensure that levy proceeds are appropriated for additional biosecurity activities.
8. The Department should produce an annual Budget-related paper which would provide a full reconciliation of biosecurity-related revenue and expenditure and thereby assist in clarifying how funds are collected and appropriated, and where they are spent.

1. Introduction

The Biosecurity Imports Levy was announced as a revenue measure in the 2018-19 Commonwealth Budget and was due to commence on 1 July 2019.

Following widespread concerns over several months about the new measure, Pegasus Economics was engaged by the Department of Agriculture and Water Resources ('the Department') to prepare a brief report to the then Minister for Agriculture and Water Resources on industry views and points of agreement on a way forward.

In its report Pegasus found that:

> *… the process for implementation of the levy has not yielded a consensus as to the appropriate point of imposition for the levy, the basis for calculating the tax liability or the collection mechanism. (Fisher & Davey, 2019, p. 17)*

Pegasus suggested the process for implementation of the levy needed to be re-set and undertaken in a way that rebuilt trust and confidence. In response to the Pegasus Report, on 24 February 2019 the then Minister for Agriculture and Water Resources, the Hon. David Littleproud (2019c), announced:

> *We've rightly heard concerns of importers around various levy designs the Department of Agriculture and Water Resources has presented during consultation on this levy. Consequently I am establishing an industry steering committee so industry itself can help design the levy.*

On 5 March 2019 the then Minister announced the chair and membership of the Biosecurity Levy Steering Committee. The then Minister's announcements on the Steering Committee, as well as the Committee's terms of reference, are provided in **Appendix 1**.

All members of the Committee, apart from the chair, were active participants in the public debate which followed the 2018 Budget announcement. This included multiple submissions to the then Minister and/or Department by their respective organisations or companies. Not all of these are explicitly cited in this report, but they have been fully taken into account, along with Committee members' active contribution to this report.

In the 2019-20 Commonwealth Budget it was announced that the start date for the levy would be deferred to 1 September 2019 to allow the Committee to make recommendations on design and implementation (Commonwealth of Australia, 2019, p. 5).

The Committee convened its inaugural meeting on 8 March 2019 and held follow-up meetings and consultations throughout March, April and May. Consultations were sometimes face-to-face, sometimes by phone and sometimes electronically.

To assist public consultation, a discussion paper was released on 1 April 2019. The paper summarised developments relating to the justification of the Government's levy, outlined the principal issues under consideration, along with some of the Committee's early thinking, and sought input from affected parties on the impacts, advantages and disadvantages of different levy design and collection options. In response, the Committee received 29 submissions (see **Appendix 2**).

Throughout its deliberations, the Committee received valuable secretariat and research assistance, and general guidance reflecting their awareness of the issues, from Roger Fisher and Alistair Davey of Pegasus Economics. The Committee expresses its considerable appreciation to them for this assistance.

The Committee also expresses its appreciation to officers of the Department who willingly assisted with the provision of data and background information, answers to queries, and the distribution of the discussion paper to its master list of interested parties.

2. Background to the Biosecurity Imports Levy

2.1 Overall Biosecurity Task

One of the major threats to native biological diversity are incursions by alien invasive species (International Union for Conservation of Nature, 2000).[1] Their impacts are immense, insidious, and usually irreversible. They may be as damaging to native species and ecosystems as the loss and degradation of habitats.

Ecological impacts of alien invasive species range from competition, predation on and hybridization with native species, transmission of parasites and pathogens, alteration of habitats, disruption of ecosystem functioning and services, to extinction of native species (Kettunen, et al., 2009).

The establishment of alien invasive species can also have significant negative quantifiable economic impacts (Kettunen, et al., 2009). Outbreaks by alien invasive species and associated diseases have the potential to devastate Australia's $60 billion agricultural industries, the environment, and plant, animal and human health (Littleproud, 2019b).

For example, it has been estimated that a large multi-state foot and mouth disease outbreak would reduce Australia's gross domestic product by $23.6 billion in present value terms over a 10 year period, while a smaller Victorian outbreak would result in a reduction of $4.6 billion (Buetre, et al., 2013).

The task of biosecurity is managing the risk of entry, establishment and spread of pests, diseases and weeds that could pose a threat to animal, plant or human health or the environment (Commonwealth of Australia, 2015, p. 123). Biosecurity is a much broader concept than quarantine, which (being a lagging risk control) has a largely negative, defensive connotation associated with isolation, segregation and disinfection at the border (Beale, Fairbrother, Inglis, & Trebeck, 2008, p. XVII). By contrast, biosecurity (being a leading risk control) is more pro-active, aligned with the pre-border, border and post-border continuum, a multi-layered approach, a shift from zero risk to managed risk, from barrier prevention to border management, from 'no, unless ...' to 'yes, provided ...'

The Commonwealth Department of Agriculture and Water Resources has primary responsibility for implementing pre-border and border biosecurity measures. For post-border measures and programs, the Department works with State and Territory Governments via the National Biosecurity Committee, and with industry and community bodies. Australia's biosecurity system safeguards:

- $6 trillion in environmental assets
- $48 billion in annual agricultural export revenue
- $38 billion in annual inbound tourism revenue
- 1.6 million jobs across the supply chain (Littleproud, 2019b).

The 1996 review of biosecurity arrangements – *Australian Quarantine: a shared responsibility* (Nairn, Allen, Inglis, & Tanner, 1996), promoted quarantine and biosecurity arrangements as a 'shared responsibility' between Commonwealth and state governments, businesses and the general community:

> *Effective quarantine relies on all stakeholders – governments, industry and the general public — appreciating the importance of quarantine vigilance to everyday*

[1] *Alien species* (non-native, non-indigenous, foreign, exotic) means a species or sub-species occurring outside of its natural range (past or present) and dispersal potential (i.e. outside the range it occupies naturally or could not occupy without direct or indirect introduction or care by humans) and includes any part, gametes or propagule of such species that might survive and subsequently reproduce (International Union for Conservation of Nature, 2000). *Alien invasive species* means an alien species which becomes established in natural or semi-natural ecosystems or habitat, is an agent of change, and threatens native biological diversity.

> *activities and responding accordingly. Quarantine is a shared responsibility for the benefit of all Australians. Breaches of quarantine have the potential to affect not only the agricultural and public health sectors – which are widely accepted as traditional stakeholders in quarantine – but also forestry, aquaculture, the natural environment and the general public. The Review Committee strongly endorses the adoption of a broader view of quarantine that embraces the whole Australian community. (Nairn, Allen, Inglis, & Tanner, 1996, p. 34)*

In 2008, the Independent Review of Australia's Quarantine and Biosecurity Arrangements – *One Biosecurity, a Working Partnership* – (Beale Report) (Beale, Fairbrother, Inglis, & Trebeck, 2008, p. IX) built on the shared responsibility principle:

> *The central theme is the development of a seamless biosecurity system that fully involves all the appropriate players—business, other nations, the states and territories and the Australian community—across pre-border, border and post-border risk management measures.*

2.2 Intergovernmental Agreement on Biosecurity Review

The Biosecurity Imports Levy had its origin in the 2017 report by another independent review of the capacity of the national biosecurity system and its underpinning Intergovernmental Agreement (Craik, Palmer, & Sheldrake, 2017), referred to as the as the Intergovernmental Agreement on Biosecurity Review (IABR). The IABR set out 42 recommendations aimed at strengthening the national biosecurity system over the next five to ten-year period, to be advanced by governments, industry and other parties, including under a refreshed intergovernmental agreement.

In relation to overall funding levels for the national biosecurity system, the IABR found that:

> *… government appropriation funding has generally been static or in decline, while externally sourced funds (cost-recovered funds and levies) have been increasing. National system funding needs to be sufficient to fulfil governments' obligations to the national system: the Australian Government's components need to be sufficiently funded to achieve Australia's legislated Appropriate Level of Protection; and states and territories need to increase funding to meet their baseline, or core, commitments. The appropriate level of funding required—or 'how much is enough'—to operate the national system will not be clear until the suite of high-priority pests and diseases and their biosecurity requirements have been agreed and worked through, including with key industry and community players. (Craik, Palmer, & Sheldrake, 2017, p. 2)*

However, the IABR noted that in relation to environmental pests and diseases, work to determine national priorities could not be readily located (Craik, Palmer, & Sheldrake, 2017, p. 60).

In relation to funding, the IABR recommended – and State/Territory and Commonwealth Governments later agreed – that budget appropriations to all Australian governments for biosecurity needed to be at least maintained at 2016–17 levels (in real terms) at least until after the next review, arguing that stable funding commitments were critical for effective planning and delivery of biosecurity activities. (Craik, Palmer, & Sheldrake, 2017, p. 119)

It recognised that governments did have some options to provide a more sustainable funding base, including reviewing their own cost-recovery arrangements and implementing new biosecurity levies to contribute further to funding the national biosecurity system (Craik, Palmer, & Sheldrake, 2017, p. 2). To that end, recommendation 33 stated that:

> *All levels of government could help meet their budgetary challenges by reviewing biosecurity levies and rates/charges currently or potentially applying to biosecurity system participants.*

The IABR suggested the imposition of a broad-based levy on both sea and air containers and non-containerised sea freight where funding would grow in accordance with the biosecurity risk posed by incoming freight:

> *Much of the material of concern to the national biosecurity system, including of environmental concern, arrives via vessels and containers—either in the contents of the container or on the external surfaces of the container itself. … The panel is of the view that a broad-based levy on containers should be implemented to contribute towards a greater effort on environmental biosecurity and improved national monitoring and surveillance generally. The levy should be extended to non-containerised imports as well. (Craik, Palmer, & Sheldrake, 2017, p. 120)*

As the IABR was of the view that inbound passengers posed a significant source of biosecurity risk, it also suggested that the Passenger Movement Charge should be increased so that inbound passengers could make a contribution to the national biosecurity system once the moratorium on further increases in the charge was lifted on 1 July 2022 (Craik, Palmer, & Sheldrake, 2017, pp. 122-123).

While the IABR related its recommendations to the biosecurity risk attached to import activities, it did not provide detailed assessments of the magnitude of that risk or attempt to apportion risk across different entry pathways.

Recommendation 34 stated that:

> *Funding for the national biosecurity system should be increased by:*
>
> - *implementing a per-container levy on incoming shipping containers of $10 per twenty-foot equivalent unit and a levy of $5 on incoming air containers, effective from 1 July 2019*
> - *increasing the Passenger Movement Charge by $5, effective from 1 July 2022, with the revenue generated hypothecated to the Australian Government agriculture department for use nationally to enhance activities across Australia's biosecurity system*
> - *more widespread implementation by states and territories of land-based levies, with each jurisdiction to determine the magnitude of a levy based on its circumstances, but to include properties at least two hectares or greater.*
>
> *The revenue raised by these mechanisms should be directed to those areas of the national biosecurity system that are currently most underfunded, with a priority for strengthening environmental biosecurity activities, national monitoring and surveillance activities, research and innovation and national communications and awareness activities. (Craik, Palmer, & Sheldrake, 2017, p. 134)*

The IABR commented that a levy would be justifiable provided it was smaller than the discontinued user charges applied to examine 100 per cent of sea containers and was implemented for the purpose of improving environmental biosecurity and national monitoring and surveillance (Craik,

Palmer, & Sheldrake, 2017, p. 121). A shipping container levy had been applied at the rate of $30 for a consignment occupying a full container and $8 for a consignment occupying only part of a container prior to 1 December 2015 to cover the cost of examining 100 per cent of sea containers. It was collected through the Full Import Declaration (FID) (Department of Agriculture and Water Resources, 2015, pp 5-6). Its termination followed acceptance that 100 per cent inspection was no longer appropriate.

In relation to a container levy, the IABR commented:

> *The benefits of implementing a levy on incoming containers are that it is directly related to a primary risk-creating activity, revenue will reflect changes in the volume of risk material over time, and a collection mechanism has already been created. (Craik, Palmer, & Sheldrake, 2017, p. 120)*

This latter comment appears to imply that the IABR favoured any new container levy being collected through the FID.

In relation to non-containerised sea freight (bulk and break bulk), the IABR commented:

> *The panel believes that, on equity grounds, the levy should be expanded to include non-containerised incoming trade in the future, as the vessels themselves also create biosecurity risks. (Craik, Palmer, & Sheldrake, 2017, p. 121)*

There has been some conjecture, including within the Committee, as to whether this comment meant the IABR envisaged a levy also being applied to non-containerised cargo or just the vessels in which such cargo was transported. Regardless, the IABR was reluctant to recommend a levy on non-containerised sea freight at that time, citing the Department's *Cost Recovery Implementation Statement, Biosecurity 2015-16*:

> *The department did examine other options to apply a levy to all types of imported cargo, however, there are no other cost-effective mechanisms available at this time. (Department of Agriculture and Water Resources, 2015, p. 6)*

In the event that a levy on both sea and air containers was deemed unacceptable, the IABR suggested an alternative to supplement the existing charge on FIDs with a levy to collect a similar amount to the proposed container charge (Craik, Palmer, & Sheldrake, 2017, p. 121). The question of the FID becoming the collection mechanism for the levy is taken up later in section 6 of the report.

2.3 2018-19 Budget Announcement and Stakeholder Consultation

The Biosecurity Imports Levy was announced as a revenue measure in the 2018-19 Commonwealth Budget. According to Budget Paper No. 2:

> *As recommended by the Intergovernmental Agreement on Biosecurity Review, the Government will introduce a new levy on sea imports, imposed on port operators from 1 July 2019, to enable the Government to invest in measures that will help it detect, identify and respond to exotic pests and diseases earlier.*
>
> *This measure will apply a $10.02 levy per twenty foot container (or equivalent) and non-containerised cargo will incur a levy of $1 per tonne. The levy will be payable on a quarterly basis. The levy is estimated to have a gain to revenue of $360 million in fiscal balance terms over the forward estimates period. In underlying cash balance terms the measure has a gain of $325 million over the forward estimates. The Department of Agriculture and Water Resources will administer the levy. (Commonwealth of Australia, 2018, p. 7)*

During the course of the Department's consultation with stakeholders following the 2018 Budget, the proposed scope of the Biosecurity Imports Levy was varied in terms of the calculation of charges as shown in **Table 1**, as well as the collection mechanism.

Table 1: Biosecurity Imports Levy Base and Rates

	Budget	Departmental position (November 2018)	Alternative proposal by an industry party (January 2019)
Vessels	N/A	$0.027 per ton vessel gross tonnage	$0.059 per ton vessel gross tonnage
Containers	$10.02 per twenty foot equivalent unit (TEU)	$10 per TEU	$10 per TEU
Break bulk cargo	$1 per metric tonne	$1 per metric tonne	$1 per metric tonne
Bulk cargo	$1 per metric tonne	$0.50 per metric tonne	N/A
Total revenue	$325m over three year forward estimates	$325m over three year forward estimates	$325m over three year forward estimates

Source: Department of Agriculture and Water Resources (2018b; 2019a).

While the original Budget measure was formulated in terms of a $10.02 levy per TEU and non-containerised cargo of $1 per tonne, the Department subsequently put forward variations to the Budget measure in response to stakeholder concerns, especially regarding what was claimed to be an undue burden imposed on bulk cargoes. The proposed levy on bulk cargo was reduced, with the revenue shortfall made-up from a charge based on vessel gross tonnage, which would include vessels arriving in ballast to load export cargo, as well as cruise vessels.

Discussion regarding the imposition point also moved during the course of the Department's consultations. The 2018-19 Budget Papers indicated that the Biosecurity Imports Levy would be collected from 'port operators' (stevedores). Subsequent discussion canvassed the possibility of applying the tax at other points in the supply chain with the Department proposing in November 2018 that the Biosecurity Imports Levy be applied to 'vessel owners, operators or their agents'.

During the course of consultations, multiple justifications were offered for the Biosecurity Imports Levy. Stakeholders were initially informed that it was introduced in order to build the Department's biosecurity detection and response capabilities. The Budget measure indicated that the levy would:

> *… enable the Government to invest in measures that will help it detect, identify and respond to exotic pests and diseases earlier. (Commonwealth of Australia, 2018, p. 7)*

Subsequent advice suggested that the levy would help fund a more general range of activities:

> *The levy will fund activities that cannot be cost recovered. This may include:*
>
> - *onshore surveillance*
> - *diagnostics*
> - *data analytics*
> - *research and adoption of new technology*

- *education and stakeholder awareness*
- *landholder biosecurity practices*
- *responding to and managing biosecurity incursions. (Department of Agriculture and Water Resources, 2018a)*

Later again, the Department informed stakeholders that the levy was intended to target biosecurity risks created by certain import activities:

> *The Levy targets the risks associated with a key pathway for the transmission of harmful pests and diseases into Australia – vessels and containers carrying imported goods into Australia by sea. (Department of Agriculture and Water Resources, 2018c)*

While the intent of the activities that the levy would fund remained unclear, including during the Committee's deliberations, the consistent message received from the Department was that biosecurity funding was under-funded and that the biosecurity threat to Australia is growing. The Committee accepted these views.

3. Defining the Problem

3.1 Growing Demand for Biosecurity Services

Australia is one of the few countries in the world to remain free from many of the world's most damaging pests and diseases (Australian National Audit Office, 2017, p. 13). These include foot and mouth disease, African swine fever, bovine spongiform encephalopathy (commonly known as mad cow disease), and Karnal bunt (a fungus affecting cereal grains). This status means that Australia and its agricultural industries maintain a comparative advantage in export markets around the world. The absence of many exotic pests and diseases also creates significant benefits for the Australian community and visitors, and for the health of Australia's natural environment.

However, globalisation – opening new trade routes, increasing trade with new partners and new commercial products, and expanding tourism – increases opportunities for potential invasive alien species to be moved between continents (Shine, et al., 2010, p. 18). In this context, Australia's biosecurity faces an increasingly complex global challenge (Commonwealth of Australia, 2015, p. 125). Increasing volumes of international travellers and trade from a growing number of countries have the potential to impair Australia's ability to protect its economy, environment and human health from exotic pests and diseases.

Previous reports on biosecurity have drawn attention to increasing demands on Australia's biosecurity services. The Beale Report found:

> *Demands on the overall system continue to increase. The volume of trade is growing and risk profiles are changing. Monitoring and surveillance needs are increasing as more trading partners move toward requiring active verification to substantiate pest and disease freedom claims (an approach described as 'known not to occur' rather than 'not known to occur'). In addition, the system faces new priorities in terms of threats to both the terrestrial and aquatic environments. (Beale, Fairbrother, Inglis, & Trebeck, 2008, p. 15)*

Similarly, according to IABR:

> *… increased global trade volumes (including the growth in online shopping), where increased transport and shipping will mean new pathways for new aquatic and other pests and diseases. (Craik, Palmer, & Sheldrake, 2017, p. 16)*

According to the Commonwealth Government (2015, p. 125):

> *Factors such as increasing global trade and the changing prevalence of pests, diseases and weeds in the region mean biosecurity risks are rising.*

Four recent examples of hitchhiker pests or diseases which demonstrate this growing complexity and associated biosecurity risk are Red Imported Fire Ants, African swine fever, Brown Marmorated Stink Bug and White spot disease of prawns (see **Box** immediately below).

One effect of these incidents is that they necessitate a rapid and significant redeployment of resources, especially biosecurity staff, to deal with what is effectively an emergency. Inevitably, staff are (temporarily) withdrawn from their "normal" duties, which in turn means that "business as usual" functions can be stretched. Concerns expressed by Committee members stressed that the effective staff shortages impact on businesses – for example, in terms of delayed clearances – the cost of which are rarely appreciated.

- Red Imported Fire Ants (RIFA) were first detected near the Port of Brisbane in February 2001 (Queensland Government Department of Agriculture and Fisheries, 2019). A national eradication program commenced in September 2001, funded by State and Commonwealth Governments. There have been six detections to date, five in Queensland (including central Queensland and Brisbane Airport) and one in NSW. Two of the Queensland sites have been eradicated but colonies have spread within south-east Queensland. Detection involves field officers, odour detection dogs and use of remote sensing technology from helicopters. In 2017, State and Commonwealth Agriculture Ministers committed a further $411 million in a 10 year eradication program, on the basis that a significant benefit cost ratio existed from eradication efforts. In the absence of publicly funded efforts to control RIFA, it has been estimated they would cause losses of $8.5 billion over a 70-year period (Hafi, Spring, Kompas, & Morey, 2014). More than half the estimated losses are expected to come from damage to agricultural activities with the household sector accounting for the remainder.
- African swine fever, a major problem of the pork industry, has recently spread to China, Vietnam and other Asian countries (Australian Pork, 2019). If established in Australia, it would cause the loss of all export pig meat markets. Recent detections of virus fragments, but not live viruses, in (non-permitted) imports of pork products by air passengers and in mail, have occurred, with 20,000 pork product seizures having been made over the past year from passengers and 1,500 from mail. Testing of samples is being carried out at the Australian Animal Health Laboratory in Geelong.
- The threat posed by the Brown Marmorated Stink Bug has arisen quickly since being first detected in 2016. In the 2017-18 season (September to April), surveillance was undertaken on imports from one country; this increased to nine countries in 2018-19 (eight in Europe plus the USA), and will involve 32 countries in 2019-20 (Department of Agriculture and Water Resources, 2019c). Imports from these countries, especially Italy, require pre-shipment fumigation. The bug is known to feed on, and cause major damage to, over 300 host species, including many vegetable crops, fruit and ornamental trees. Detections have been recorded in Queensland, Victoria and WA, involving imports of machinery, terracotta pots and bulldozers. The intensive monitoring programs have necessitated a major redeployment of biosecurity staff.
- White spot disease is a highly contagious viral disease of prawns, first detected in Taiwan and China in 1992. It has since spread throughout prawn farming regions in Asia and the Americas, causing rapid and heavy (over 80 percent) prawn mortality. Australia is almost the only prawn farming country in the world that had remained free of white spot disease (although a brief detection occurred in Darwin in 2000). The disease does not pose a threat to human health or food safety. In late 2016, seven prawn farms on the Logan River, Queensland, tested positive to the virus. This led to significant controls, including a six month ban on the imports of uncooked prawns and the enforced destocking of farms, representing losses of millions of dollars as efforts were intensified to contain and then eradicate the disease. Departmental testing showed that up to 70 percent of imported prawns tested positive for white spot disease, the vector by which the disease became established in Queensland. Total expenditure on eradication by the Queensland and Commonwealth Governments amounted to around $50 million. A review by the Inspector-General of Biosecurity (2017) concluded that the Acceptable level of Protection had been breached. It made 22 recommendations which were accepted, or accepted in principle, by the Department.

By 2030-31 Australian airports are expected to handle almost three times as many international passengers compared to 2010–11 (Bureau of Infrastructure, Transport and Regional Economics, 2012, p. 64), while containerised imports are also projected to almost triple over a similar period (Bureau of Infrastructure, Transport and Regional Economics, 2014, p. 70).

3.2 Biosecurity Funding

While the demand for biosecurity services has been increasing and is expected to increase further, government budgets for biosecurity have been under pressure (Craik, Palmer, & Sheldrake, 2017, p. 119).

There are two primary sources for funding biosecurity functions:

- taxpayer funding through budget appropriations
- cost recovery from users of import clearance and export inspection and certification systems.

The Consolidated Revenue Fund is the principal working fund of the Commonwealth Government (Productivity Commission, 2001, p. 41). Section 81 of the Constitution requires all public monies raised by the Commonwealth to be credited to the fund. Section 83 of the Constitution states that monies cannot be drawn from the fund without Parliamentary approval (an appropriation).

A special account is an appropriation mechanism that sets aside an amount within the Consolidated Revenue Fund for specific expenditure purposes (Commonwealth of Australia, 2019a, p. 131). Special accounts can be used to appropriate expenditure resourced from contributions from other parties. The Department receives cost recovery funds collected for its biosecurity activities by means of a special account – in this case, the Australian Quarantine and Inspection Service Special Account.

Tables 2 and 3 show total Commonwealth funding sources and total funding for biosecurity from 2011-12 to 2019-20, in nominal and real terms.

Table 2: Sources of Commonwealth Government Funding and Total Funding for Biosecurity – 2011-12 to 2019-20 (nominal $ million)

Funding Source ($m)	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Budget Appropriations	307	236	235	244	274	304	322	407	351
Cost Recovered	322	367	389	386	439	428	430	433	434
Total	629	603	623	630	713	732	752	840	785
Percentage Cost Recovered	51%	61%	62%	61%	62%	58%	57%	52%	55%

Source: Department of Agriculture and Water Resources, data provided to the Steering Committee.
Note: $m in nominal terms. Data includes Budget Outcomes 1 and 2, plus Treasury appropriations for national partnership payments to the States for biosecurity.

Table 3: Sources of Commonwealth Government Funding and Total Funding for Biosecurity – 2011-12 to 2019-20 (real 2011-12 dollar $ million)

Funding Source ($m)	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Budget Appropriations	307	231	224	228	253	276	287	352	298
Cost Recovered	322	359	370	361	405	389	383	375	368
Total	629	590	593	590	658	665	670	727	666

Source: Department of Agriculture and Water Resources, data provided to the Steering Committee.
Note: $m in real 2011-12 dollar terms. Data deflated using the consumer price index (CPI) and CPI forecasts. Data includes Budget Outcomes 1 and 2, plus Treasury appropriations for national partnership payments to the States for biosecurity.

The IABR found that budget appropriation funding for Commonwealth biosecurity declined markedly from 2011–12 to 2014–15, falling by almost 30 per cent in real terms in just three years (Craik, Palmer, & Sheldrake, 2017, p. 104). It then increased following the 2015 Agricultural Competitiveness White Paper, but this funding was scheduled to end in 2018–19 (Craik, Palmer, & Sheldrake, 2017, p. 105). In the White Paper, the Commonwealth committed to spending $200 million over four years to improve biosecurity surveillance and analysis in order to better target critical biosecurity risks (Commonwealth of Australia, 2015, p. 127).

While taxpayer funding has been uneven over the past decade, cost recovery has generally been trending upwards, increasing by over 16 per cent in real terms from 2011-12 to 2018-19.

Business and industry groups are strongly supportive of biosecurity objectives and recognise the need for an appropriate funding base to support the continued provision of biosecurity services at Australia's border. This has consistently been the case over many years and was reiterated in submissions to the Committee.

There is clear recognition that biosecurity breaches have the potential to threaten the reputation of Australian products and business continuity. Breaches can also be costly to contain, let alone eradicate, as the example of Red Imported Fire Ants documented earlier demonstrates.

In addition, many stakeholders, in reflecting their own experiences, consider that the biosecurity function is under-funded; this is seen in submissions to the IABR, the Pegasus Report and to the Committee.

Similarly, the Inspector-General of Biosecurity observed a decrease in frontline inspectors while the volume of incoming products and associated biosecurity risks has increased.

> *Frontline inspector numbers have fallen by 25 per cent over the past five years, but volumes of incoming sea and air cargo, mail and passengers continue to rise steadily, as do accompanying biosecurity risks. (Inspector-General of Biosecurity, 2017, p. 20)*

Concerns regarding the level of resourcing for biosecurity are not new, with the Senate Standing Committee on Rural and Regional Affairs and Transport References Committee (2012, p. 27) receiving a number of submissions on a biosecurity inquiry back in 2012 that expressed concern about the ability of the then Department of Agriculture, Fisheries and Forestry to maintain an adequate level of biosecurity resourcing.

3.3 Why is the Biosecurity Imports Levy a General Tax?

3.3.1 Cost Recovery Fees, Levies and General Taxation

The Commonwealth Government provides a diverse range of services, support and benefits to the Australian public to achieve its policy outcomes. These activities are funded from different revenue sources, including general taxation, sales of public assets, government investments, cost recovery and other revenue-raising measures.

A generally accepted definition of taxation is:

> *A compulsory exaction of money by public authority for public purposes, enforceable by law, and … not a payment for services rendered (Matthews v Chicory Marketing Board [1938] 60 CLR 263).*

When imposing taxation, the Commonwealth must ensure that it complies with section 55 of the Constitution:

> *Laws imposing taxation shall deal only with the imposition of taxation, and any provision therein dealing with any matter shall be of no effect. Laws imposing*

> *taxation, except laws imposing duties of customs or of excise, shall deal with one subject of taxation only; but laws imposing duties of customs shall deal with duties of customs only; and laws imposing duties of excise shall deal with duties of excise only. (section 55)*

If a single Commonwealth Act attempted both to impose a tax and to deal with other matters, then the imposition of the tax would be valid, but the remainder of the Act would not (Productivity Commission, 2001, p. 36). Thus, in order to legislate a new tax, the Commonwealth Parliament is required to pass two pieces of legislation – one authorising the imposition of the tax and another one authorising 'other matters', typically its collection and administration.

Cost recovery involves the Commonwealth Government charging the non-government sector some or all of the efficient costs of a specific government activity (Department of Finance, 2014, p. 1). That activity may include the provision of goods, services or regulation, or a combination of them.

The characteristics of the government activity determine the type of cost recovery charge used (Department of Finance, 2014, p. 2). There are two types of cost recovery charges:

- cost recovery levies—charges imposed when a good, service or regulation is provided to a group of individuals or organisations (e.g. an industry sector) rather than to a specific individual or organisation. A cost recovery levy is a tax and is imposed via a separate taxation Act. It differs from general taxation as it is 'earmarked' to fund activities provided to the group that pays the levy
- cost recovery fees—fees charged when a good, service or regulation (in certain circumstances) is provided directly to a specific individual or organisation.

In relation to a cost recovery levy, the *Australian Government Cost Recovery Guidelines* state that:

> *… a cost recovery levy should only recover the costs of the activity provided to a group of individuals or organisations that pay the cost recovery levy. Otherwise, this type of charge could be considered general taxation. (Department of Finance, 2014, p. 23)*

A fee-for-service must reflect the costs of services provided and that the service must be rendered to, or at the request of, the party paying the account (Productivity Commission, 2001, p. 36). A cost recovery fee-for-service needs to ensure that costs that cannot be reasonably attributed to a specific individual or organisation are not included in the fees imposed, otherwise, there could be a risk that the fees could be considered taxes for constitutional purposes (Department of Finance, 2014, p. 37n). For example, the former Australian Quarantine Inspection Service received legal advice that, if a program's revenue exceeded costs by more than 10 per cent, there could be a difficulty in maintaining its status of fee-for-service 'cost-recovery' — it could be construed as a tax (Australian National Audit Office, 2000, p. 68).

Overall, cost recovery is the recovery by government of some or all of the costs of a particular activity (Productivity Commission, 2001, p. 1). Thus cost recovery is different from general taxation which raises revenue to fund a wide range of government activities, with no necessary or direct link between the source of the tax and the expenditure of the revenue raised. As such, general taxation is not a cost recovery charge, as the activities funded through general taxation revenue do not have to relate to the individuals or organisations being charged (Department of Finance, 2014, p. 65).

In line with the above discussion, the Committee concludes that the proposed Biosecurity Imports Levy is a form of taxation, and not a cost recovery charge.

3.3.2 Biosecurity Activities Funded by the Levy

In a Departmental question and answer sheet on the proposed Biosecurity Imports Levy, the question as to where the proceeds of the levy would be spent, was addressed in the following terms:

> *The Levy will support a smarter and more efficient biosecurity system that protects our agricultural production, trade and environment while facilitating trade by:*
>
> - *offsetting costs of biosecurity activities that manage the types of risks created by vessels and containers carrying imported goods entering Australia by sea*
> - *streamlining our regulatory activities at the border to better target high risk goods and reduce regulatory costs for importers of low risk goods*
> - *trialling new technologies and smarter border processes to improve our ability to detect biosecurity risks at the border*
> - *strengthening our assurance and verification activities at the border to better identify and target non-compliance with our biosecurity requirements*
> - *improving our capability to identify and target high biosecurity risk pathways, such as sea cargo, and*
> - *increasing investment in the delivery of effective biosecurity services, such as screening passengers and cargo at sea ports, as the volume and complexity of trade into Australia increases. (Department of Agriculture and Water Resources, 2018c)*

At an industry presentation in June 2018, the Department observed, in relation to cost recovery for its biosecurity functions, that:

> *All current fees and levies being charged to the biosecurity cost recovery arrangement recover the costs of **regulatory activities that can be attributed to an individual or group of individuals** (emphasis in the original). (Department of Agriculture and Water Resources, 2018a, p. 15)*

It commented in relation to the imposition of the Biosecurity Imports Levy that:

> - *The Biosecurity Imports Levy is not a cost recovery arrangement*
> - *The levy will fund activities that cannot be cost recovered*
> - *The levy amounts to general taxation, supporting funding for system activity and investment that cannot be cost recovered. (Department of Agriculture and Water Resources, 2018a, p. 15)*

4. Who Should Pay for Biosecurity Services?

A first step in determining who should pay for the provision of biosecurity services is to determine the nature of the product or service.

Products can generally be categorised as private goods, public goods, or something in between (such as a club good). Differentiating between them depends on the following characteristics:

- Rivalrous – consumption by one person will diminish the amount that can be consumed by others
- Excludable – whether it is possible to exclude non-users.

These concepts provide some guidance as to the means by which different activities might best be funded. Private goods, where the benefits are entirely captured by the entities that consume them, are often funded through a direct fee-for-service arrangement. This is consistent with the Department's approach to cost recovery charges in relation to items such as the AQIS processing charge, the vessel operator charge, as well as various other processing and inspection charges.

The Committee's view is that the provision of biosecurity services that cannot be cost recovered lies somewhere between a pure public good and a selective public good, depending on the nature of the service. This is consistent with the view expressed by the Productivity Commission (2016, p. 319):

> *Biosecurity has both public good properties and spillover effects (externalities). A pest- and disease-free environment is a public good. If providing such an environment was left to the private sector, this could lead to free-riding on the management efforts of others and result in underinvestment in biosecurity activities. This failure of the market to adequately address pest and disease risks is a major reason for government involvement in biosecurity.*

A discussion of these concepts as they apply to the Biosecurity Levy is provided in **Appendix 4**.

Based on these reflections, the Committee is of the view that the biosecurity activities described by the Department as likely to be funded by the proposed Biosecurity Imports Levy appear to represent a mix of public, private and club goods.

It is not clear to the Committee that it is necessarily efficient or equitable to seek to fund all of those activities through a selective levy applied to only some of the parties involved in triggering the need for biosecurity activities.

However, the Committee does accept that it would be efficient to charge the risk exacerbators or risk creators involved in the import chain for the biosecurity costs associated with their activities. Risk exacerbators are those whose actions create a negative externality or who put a positive externality at risk (The Treasury (New Zealand), 2002, p. 7). Charging risk exacerbators is simply the application of a Pigouvian (or corrective) tax that seeks to charge those creating a negative spillover for the damage they create. It is analogous to the application of the polluter pays principle.

Further information is provided in **Appendix 4**.

5. A Framework for Assessing Options for a Biosecurity Levy

5.1 Principles of Taxation

Taxation and government charges provide governments with the means to provide goods and services and to redistribute income. However, most taxes distort production and consumption decisions, causing inefficiencies in the allocation of resources, thereby imposing costs which may exceed the revenue raised.

The impact of taxes has prompted analysts to consider principles or criteria for design and assessment of taxation systems. In 1776, the celebrated economist/social philosopher Adam Smith, via a reprinted paper (2007, pp. 639-641), proposed four maxims of taxation which could be characterised as: equity, certainty, convenience of payment and being economic of collection (or economically efficient). Since then, economic and political analysts have refined these principles to the point that they have become widely accepted.

In an Australian context, the report entitled *Australia's Future Tax System: Report to the Treasurer* (Henry, Harmer, Piggott, Ridout, & Smith, 2009, p. 17), more commonly known as the Henry Tax Review, outlined the following tax design principles:

- Equity (fairness)
- Efficiency
- Simplicity
- Sustainability
- Policy consistency.

The terms "equity" and "fairness" are often used synonymously in tax literature (Woolery, 1989). Equity has two dimensions:

- Horizontal – refers to people in similar circumstances being treated in a similar way (Henry, Harmer, Piggott, Ridout, & Smith, 2009, p. 173), or (Atkinson & Stiglitz, 1980, p. 353)
- Vertical – refers to people with greater economic capacity being asked to shoulder a higher tax burden (Henry, Harmer, Piggott, Ridout, & Smith, 2009, p. 177).

Allocative efficiency occurs when resources used to produce a set of goods and services are allocated to their highest valued uses (Hilmer, Rayner, & Taperell, 1993, p. 4). This is important because resource misallocation leads to reduced income growth for society at the aggregate level.

Taxes inevitably distort consumption because they change relative prices within the economy. The excess burden of taxation (or deadweight loss), as taxpayers make substitutions to ameliorate the impact of a tax, represents lost value to consumers and producers, not captured by an increase in government revenue.

Simplicity requires the tax system to be easy to understand and straightforward to comply with (Henry, Harmer, Piggott, Ridout, & Smith, 2009, p. 17).

Sustainability reflects the basic purpose of taxation and government charges, which is to provide resources for government programs and to redistribute income. Sustainability also requires that the structural features be durable in a changing policy context (Henry, Harmer, Piggott, Ridout, & Smith, 2009, p. 17).

The fifth principle, policy consistency, refers to tax policy being internally consistent, with the adoption of rules in one part of the tax system not contradicting rules in another part (Henry, Harmer, Piggott, Ridout, & Smith, 2009, p. 17).

The Henry Tax Review proceeded from the premise that raising revenue from taxes should be broadly based and avoid as much as possible distorting individuals' choices. The exception to this

rule are taxes explicitly targeted towards correcting market failures (e.g. environmental costs). In relation to those exceptions, the Henry Tax Review observed:

> *Other taxes should be maintained only if they efficiently address social or economic costs – such as taxes on tobacco, alcohol, gambling and environmental costs, and efficient road user taxes or charges. (Henry, Harmer, Piggott, Ridout, & Smith, 2009, p. xviii)*

In particular, the Henry Tax Review highlighted the need for specific taxes to improve market or social outcomes by addressing spillover costs (Henry, Harmer, Piggott, Ridout, & Smith, 2009, p. 53).

5.2 Charging Risk Creators and Exacerbators

The Committee accepts there is merit in risk creators and exacerbators paying for biosecurity services which mitigate the effects of the risks created or exacerbated by them. This aligns with the sentiment expressed by the Government in proposing the levy and the overwhelming majority of submissions received by the Committee.

The Committee has taken account of the then Minister's public statements regarding the intended purpose of the levy, which also form part of the Committee's terms of reference. For example, the then Minister said:

> *Those creating biosecurity risk should contribute fairly to addressing that risk, remembering pests and diseases arrive on the hulls and decks of ships and not just in the imported product itself. (Littleproud, 2019a)*

The terms of reference direct the Committee to have regard to:

> *processes of importing that might raise biosecurity risks.*

Similar comments have been made by the Department:

> *The Levy targets the risks associated with a key pathway for the transmission of harmful pests and diseases into Australia - vessels and containers carrying imported goods into Australia by sea. (Department of Agriculture and Water Resources, 2018c)*

> *The rationale underpinning the levy specifies that all movements of vessels, containers and goods are a potential source of biosecurity risk. (Department of Agriculture and Water Resources, 2019a)*

Submissions received by the Committee were generally supportive of an approach of imposing a levy on risk exacerbators. According to a submission received from a significant number of Australian horticultural industries:

> *We strongly support the introduction of such a levy, which targets biosecurity risk creators and will fund improvements to strengthen the national biosecurity system for the benefit of all Australians. (Almond Board of Australia, Australian Walnut Industry Association, AUSVEG, Berries Australia, Cherry Growers Australia, Chestnuts Australia, ..., Voice of Horticulture, 2019)*

According to the Invasive Species Council (Invasive Species Council, 2019, p. 1):

> *Given the regular incursions into Australia of exotic species that harm the natural environment (e.g. myrtle rust, red fire ants, yellow crazy ants) – signifying the*

> *biosecurity system needs strengthening – it is appropriate and consistent with biosecurity principles that more revenue should be raised from risk creators.*

According to the National Farmers' Federation (2019, p. 1):

> *The NFF strongly supports the introduction of such a levy, which targets biosecurity risk creators and will fund improvements to strengthen the national biosecurity system for the benefit of all Australians.*

According to BlueScope Steel (2019, p. 1):

> *BlueScope strongly believes that any biosecurity levy should be linked to the level of biosecurity risk and that the levy should be fit for purpose.*

However, the requirement that the levy should be borne by risk creators and exacerbators does constrain the options that the Committee can develop. It requires the Committee to consider in some detail the risk attached to the importation of goods and the vessels by which they are transported. This matter is considered later in the report.

5.3 Application of Funds

Numerous submissions to the Committee expressed concern that revenue generated through the imposition of a levy as a general tax would go into the Consolidated Revenue Fund, without any guarantee that additional revenue, let alone the full revenue raised from the levy, would be directed back towards the provision of biosecurity services. According to a submission received from a significant number of Australian horticultural industries:

> *We believe it is critical that the full quantum of funds raised through the levy is invested back into the biosecurity system and does not disappear into consolidated revenue. (Almond Board of Australia, Australian Walnut Industry Association, AUSVEG, Berries Australia, Cherry Growers Australia, Chestnuts Australia, ..., Voice of Horticulture, 2019)*

In a similar vein, the National Farmers' Federation (2019, p. 1) commented:

> *… we would like to make the important point that it is critical the full quantum of funds raised through the levy be invested back into the biosecurity system, and does not disappear into consolidated revenue.*

According to the Chamber of Minerals and Energy of Western Australia (CME) (2019):

> *CME agrees with the concerns raised during the consultation process regarding appropriation of the levy funds raised. Without hypothecating the levy funds, it is not possible to ascertain if the levy will fund additional biosecurity services or is simply designed to accrue to consolidated revenue. CME does not welcome cross subsidisation of unrelated or underperforming regulatory services.*

According to Cruise Lines International Association (2019):

> *… we understand the Levy will operate as a general tax that will not be hypothecated and is not based on cost recovery principles. Presentations by [the Department] to industry stakeholders in January and February 2019 indicate that Levy revenue will contribute to a range of initiatives not solely related to shipping, including the upgrading of the Department's IT systems and the Indigenous Biosecurity Rangers Program.*

The Committee considers it is vital for the legitimacy of the levy, and consistent with the concept of shared responsibility for biosecurity, that the Government demonstrates its good faith by providing a clear relationship between the revenue raised and the application of funds to biosecurity activities. The Committee discusses measures to help ensure this outcome in Section 5.5 below.

5.4 Passenger Movement Charge

Several submissions pointed to the experience with the Passenger Movement Charge (PMC) (see **Box**) as underscoring concerns over whether revenue raised from a biosecurity levy will be directed towards provision of biosecurity services.

The Passenger Movement Charge (PMC) is a charge, now $60, levied per passenger on departing Australia and is payable by all passengers (sea and air). According to the second reading speech for the *Passenger Movement Charge Amendment Bill, 1995*:

> *This Bill, together with the Passenger Movement Charge Collection Amendment Bill 1995 completes the package of legislative measures introduced last year following the Government's 1994 Budget initiative to replace the existing $25 departure tax with a $27 passenger movement charge to fully offset the cost of customs, immigration and quarantine processing at Australia's borders and the cost of issuing short-term visitor visas. (House of Representatives, 1995, p. 1609)*

While the rationale for the introduction of PMC was as a cost recovery measure, in law the PMC was a tax (Australian National Audit Office, 1996). However, with the 1998–99 Budget decision to increase the PMC from $27 to $30 per passenger, the Australian National Audit Office (2000, p. 31) found that a policy shift had apparently taken place and the PMC was now being applied partly as a general revenue raising source. In turn, the Australian National Audit Office (2000, p. 31) concluded:

> *As a consequence, the PMC is no longer solely linked to cost recovery of Customs, Immigration and Quarantine services.*

In the 2001-02 Budget, the PMC was increased from $30 to $38, effective from 1 July 2001. According to the second reading speech for the *Passenger Movement Charge Amendment Bill, 2001*:

> *The increase was announced by the Treasurer in the 2001-02 Budget and will fund increased passenger processing costs as part of Australia's response to the threat of the introduction of foot and mouth disease. (House of Representatives, 2001, p. 26977)*

This increase in the PMC was to offset the increased cost of inspecting passengers, mail and cargo at Australia's international airports (Commonwealth of Australia, 2001, p. 7).

The IABR observed:

> *While it is true that biosecurity activities were used to justify some past increases (part of the $2 increase in 1995 and the $8 increase in 2001), the fact is that the PMC is now considered a general tax and funds are not hypothecated to the Australian Government agriculture department for its biosecurity functions. (Craik, Palmer, & Sheldrake, 2017, p. 22)*

Subsequent increases in the PMC were from $38 to $47 in 2008 for national aviation security measures, from $47 to $55 in 2012 for an Asian marketing fund and a regional tourism development grant, and from $55 to $60 in 2017 for changes to the working holiday maker arrangements. At its present level, the PMC is one of the highest such charges in the world.

For example, according to Carnival Australia (Carnival Australia, 2019):

> *There is significant concern that the Levy, in its current form, could become similar to the PMC in that its purpose is to merely be an additional stream of consolidated revenue rather than a specific revenue targeted to minimising the biosecurity risks to this country.*

The Australian Chamber of Commerce and Industry (2019, p. 4) expressed concern that revenue raised for biosecurity purposes through previous increases in the Passenger Movement Charge have now been appropriated for other purposes with the original rationale long since forgotten:

> *We … note that biosecurity activities were used to justify past increases in the PMC (biosecurity being an element of the $2 increase to PMC in 1995 and again an $8 increase in 2001). Accordingly, although the PMC goes to general revenue, we argue that a substantial amount is already being collected through the PMC to cover biosecurity activities. These funds should be deployed toward the biosecurity task before any additional levy is applied to the tourism sector.*

This sentiment was echoed by the Tourism and Transport Forum Australia (2019):

> *Our sector is concerned about the proposal to extend the Levy to the operations of cruise vessels. Cruise passengers are already subject to the Passenger Movement Charge (PMC), a tax that returns $1.2 billion annually to the Government and was introduced to cover passenger border processing costs including biosecurity management.*
>
> *This tourist tax more than covers spending by the Department of Agriculture and Water Resources on biosecurity management, which was a maximum of $374 million in 2017/18.*
>
> *This considerable over-collection of revenue from passengers means any additional spending or investment required by the Department for biosecurity management should be apportioned from the current taxation envelope.* ***Extending the Biosecurity Imports Levy to cruising would equate to taxing cruise passengers twice for the one border biosecurity management process.*** *(emphasis in the original)*

Several other submissions did propose that the levy should be extended to include passengers (*inter alia*) via an increase in the Passenger Movement Charge. The argument was one of perceived overall equity, on the basis that arriving passengers are a potential source of biosecurity risk. It is possible, in the Committee's opinion, that the groups proposing this extension are not aware of the Passenger Movement Charge history as documented above.

In addition, the Passenger Movement Charge is currently subject to a moratorium (in terms of changes to its rate) until at least 1 July 2022.

The Committee's recommendation is for the more-than-$8 component of the Passenger Movement Charge originally justified for biosecurity purposes to be appropriated anew for biosecurity purposes. The revenue involved amounts to approximately $200 million per annum at current passenger numbers. Noting the quotes provided in the **Box** above, the Committee is unaware that any Government has explicitly removed the biosecurity justification for this component (even if, for example, the foot and mouth threat which gave rise to the 2001 increase may have since abated).

5.5 Ensuring Levy Revenue is Appropriated for Biosecurity Purposes

The Committee recognises any biosecurity imports levy revenue is unlikely to be hypothecated, given the reluctance of governments to limit future budget flexibility by hypothecating tax revenues.

In its report on the levy, Pegasus found:

> *Stakeholders are calling for … much greater transparency and accountability for the revenue to be raised from the levy and how the additional funding will be spent. (Fisher & Davey, 2019, p. 16)*

One way of alleviating industry concerns would be to introduce additional measures to provide levy payers with an assurance that revenue generated will be appropriated to its intended biosecurity purpose.

The Committee therefore recommends the appointment of a high-level, expertise-based Biosecurity Advisory Council that would enhance the shared responsibility principle and provide more scope for private sector interests to contribute constructively to important biosecurity decisions, including funding and consideration of relative biosecurity risk.

The establishment of a Biosecurity Advisory Council was originally recommended by the Beale Report:

> *The Panel recommends that a new Biosecurity Advisory Council be established as an advisory body to the Minister for Agriculture … The Biosecurity Advisory Council should have an independent chair appointed by the Minister in consultation with the states. Other members of the Council should also be appointed by the Minister for terms that are staggered to ensure continuity.*
>
> *The Council should consist of skills-based members drawn from the Commonwealth and state governments, business (through Animal Health Australia and Plant Health Australia), academics and non-government organisations. Membership should be non-representative, consisting of individuals with substantial knowledge or experience across a range of disciplines, including agricultural, environmental and health science, risk assessment, business management and operational aspects of biosecurity. (Beale, Fairbrother, Inglis, & Trebeck, 2008, p. 76)*

The Beale Report's recommendation was accepted in principle by the Government at the time, but not implemented.

The Committee proposed the Biosecurity Advisory Council in its discussion paper. There was generally strong support amongst submissions in response. According to the Tasmanian Farmers and Graziers Association (2019):

> *An expertise-based Biosecurity Advisory Council will be very beneficial in making decisions about biosecurity funding, relative to biosecurity risk.*

According to the Cement Industry Federation (2019, p. 8):

> *A Biosecurity Advisory Council is a worthy proposition for future consideration once the base case to create a new levy has been established. The Cement Industry Federation has a preference for an independent body that reports directly to the Minister for Agriculture.*

According to Glencore (2019, p. 5):

> *… a Biosecurity Advisory Council that includes industry representation would be of benefit to ensure that the private sector's interests are represented. Industry representation should include shipping lines, brokers and importers.*

The establishment of a Biosecurity Advisory Council would also provide a positive demonstration that biosecurity is genuinely a shared responsibility. In this regard the Customs Brokers and Forwarders Council of Australia (2019, p. 8) commented:

> *The CBFCA believes the appointment of a high-level, expertise-based Biosecurity Advisory Council should provide much-needed transparency on how funds are deployed, and most important of all, it would provide a vehicle for constructive industry engagement on expenditure programs and priorities, and risk assessment, consistent with the "shared responsibility" principle.*

A further accountability and transparency measure would be for the Department to produce an annual Budget-related paper on biosecurity as suggested by the Pegasus Report:

> *In order to reassure stakeholders that any additional revenue collected through a biosecurity tax in the future will be allocated to border biosecurity compliance and enforcement, and provide a measure of accountability for industry stakeholders, the government could produce an annual Biosecurity Budget Statement as a Budget Related Paper. The existing annual [Department] Portfolio Budget Statement is somewhat opaque and difficult to follow, especially for those not familiar with Commonwealth Government budgeting and accounting practices. The Biosecurity Budget Statement could provide a full reconciliation of funding sources and expenses for [Department] Biosecurity. It could outline current biosecurity priorities as well as provide more meaningful indicators on the quality of service provided such as turnaround times on biosecurity inspections. (Fisher & Davey, 2019, p. 18)*

The proposal for the production of an annual Budget-related paper on biosecurity was also described in the Committee's discussion paper. It received strong support from submissions. According to the Chamber of Minerals and Energy of Western Australia (2019):

> *If the levy funds cannot be hypothecated, an annual budget report will provide transparency to show the meaningful use of the funds.*

Similarly, the National Farmers' Federation (2019, pp. 2-3) said:

> *An Australian Government commitment to produce an annual Biosecurity Budget-related Paper with a full reconciliation of funding sources and expenses would be very much welcomed by the NFF and its members. As well as providing much-needed transparency and accountability, such a measure would send a strong signal to industry and the community about the national importance of biosecurity, and the government's commitment to working with industry to*

deliver a world-class biosecurity system by identifying priorities and addressing gaps.

On this basis, the Committee further recommends that the Department should produce an annual Budget-related paper which would provide a full reconciliation of biosecurity-related revenue and expenditure and thereby assist in clarifying how funds are collected and appropriated, and where they are spent.

6. Collection Mechanism

6.1 Proposed Collection Mechanisms for a Biosecurity Levy

There are three main categories of sea freight:

- Containers, which are standardised boxes usually 8 feet wide, often 8 feet 6 inches high and mostly twenty foot or forty feet long, usually filled with cargo (Stopford, 2009, p. 65)
- Bulk refers to either dry or liquid products transported unpackaged in large quantities (Pecci, 2017)
- Break bulk refers to cargoes that are carried in unitised form such as palletised, bagged, strapped, bundled, drummed or crated and non-unitised cargoes such as motor vehicles and steel (Manaadiar, 2015).

Aircraft containers, known as Unit Load Devices (Clark Global Logistics, 2013), come in two forms: pallets and containers. Pallets are rugged sheets of aluminium with rims designed to lock onto cargo net lugs. Containers, also known as cans and pods, are closed containers made of aluminium or combination of aluminium (frame) and Lexan (walls), which, depending on the nature of the goods to be transported, may have built-in refrigeration units.

The Department intended that the levy be collected via a new mechanism – one developed by firms involved at the point of imposition. In its report, Pegasus found:

> *Stakeholders expressed concern that not only would they be expected to incur the impost of the levy itself, but that government was expecting them to also incur the cost associated with establishing the collection mechanism. Stakeholders considered this doubling up of the burden associated with the impost of the levy to be unreasonable, given the availability of other, lower cost collection mechanisms commonly employed to collect similar taxes. (Fisher & Davey, 2019, p. 14)*

The 2018-19 Budget Papers indicated that the levy would be collected from 'port operators' (Commonwealth of Australia, 2018, p. 7), i.e. port terminal operators or stevedores.

Later, the Department (2018b) suggested that shipping lines might be an appropriate point of imposition because they have access to a suitable charging structure and a reporting tool that would minimise new administrative requirements for vessel masters or their agents. It is also understood that the Department canvassed the possibility of imposing the levy on port authorities (Fisher & Davey, 2019, p. 12).

In submissions to the Committee, no one supported the collection of a levy through either stevedores or port authorities; one submission supported collection through vessel masters or their agents (Gas Energy Australia, 2019).

A widespread view noted by Pegasus was that the levy should be collected directly from the importer through the Full Import Declaration (FID):

> *There is a developing consensus amongst the industry representatives that have been consulted that if a levy on imports is to be introduced, the point of imposition should be as close as possible to the cargo owners/importers who have created the demand for the import. This would mean that the economic incidence (who ultimately bears the burden) and the legal incidence (who pays the bill to the Australian Government) would be as close as possible, thereby minimising the scope for cost multipliers as costs are passed through the supply chain. (Fisher & Davey, 2019, p. 13)*

Similarly, the overwhelming majority of submissions to the Committee expressed a preference for the FID, largely because it was an existing collection mechanism, and would minimise additional costs arising from other parts of the supply chain 'clipping the coupon' on the way through. For example, BlueScope Steel (2019, p. 5) commented:

> *We note the FID's advantage as an existing collection system that would require minimal change to make it fit-for-purpose, with the levy being imposed directly on importers with minimised cascading effects and no additional management, administration or third party auditing requirements.*

According to Llew Russell (2019, p. 9), a former Chief Executive Officer of Shipping Australia:

> *There is a strong case for the use of the FID especially if software adjustment could be made to provide all the data required.*

A FID is information required by the Commonwealth to process imported goods with a value exceeding $1,000 (Department of Agriculture and Water Resources, 2017, p. 7). Where a FID for a consignment is lodged, a biosecurity processing charge is applied (Department of Agriculture and Water Resources, 2017, p. 20) – the so-called 'AQIS processing charge' (an anachronistic name given that the Australian Quarantine and Inspection Service as an organisation no longer exists). The AQIS processing charge is currently $42 per sea FID and $33 per air FID. The AQIS processing charge funds the biosecurity systems costs of importing cargo and packaging (Department of Agriculture and Water Resources, 2015, p. 6).

The AQIS processing charge is applied when an entry is lodged in the Integrated Cargo System (ICS) — a database managed by Australian Border Force within the Department of Home Affairs. The ICS is currently the only method of reporting the movement of goods, including the shipment type, across Australia's borders (Inspector-General of Biosecurity, 2018, p. 26). Through the ICS, Home Affairs collects information on whether a FID involves air or sea cargo, as well as whether the value of the FID is under $10,000 or $10,000 and over.

The ICS has a number of other external applications. The FID is also used to collect the customs' declaration processing charge, dumping duty and countervailing duty on behalf of Home Affairs, and excise equivalent customs duty, goods and services tax, luxury car tax and wine equalisation tax on behalf of the Australian Taxation Office.

However, the Department (2018c) did not support the Biosecurity Imports Levy being collected through the FID, highlighting shortcomings including:

- It does not allow for charging of empty containers
- It would require extensive changes to the Integrated Cargo System to alter the basis for charging, which would be unlikely to be completed in time for commencement on 1 July 2019.

The importation of empty sea containers represents only around 7 per cent of total container imports (Bureau of Infrastructure, Transport and Regional Economics, 2018a, p. 16). Therefore the loss of revenue from not capturing empty containers (or an offsetting increase in the FID charge on cargo-carrying containers or FIDs) would be small. The Committee considers that this shortcoming is not material.

While not having expert information on which to substantiate a definitive view, in the Committee's opinion, concerns relating to the length of time required to perform IT upgrades and alterations to the Integrated Cargo System are not a sufficient reason to preclude the use of the FID, especially if Department of Home Affairs' staff were given a Ministerial directive of appropriate importance and priority.

Having interacted with relevant staff in the Department of Home Affairs, the Committee considers that necessary IT upgrades should be manageable, especially given that a FID levy previously existed prior to 2015. They would certainly be less onerous than the imposition on the private sector of the task of building a new collection mechanism from scratch.

Information was provided to the Committee by the Department of Home Affairs about the number and disposition of FIDs – this information is reproduced in **Table 4**.

Table 4: Numbers of Full Import Declarations, 2018

Arrival mode	Value		Sub total	Total
Sea	**>$10000**	1.51 million		
	<$10000	0.28 million	1.79 million	
Air	**>$10000**	0.64 million		
	<$10000	1.60 million	2.24 million	4.03 million

Source: Department of Home Affairs, information provided to the Committee.

As can be seen, there are slightly more air FIDs than sea FIDs. Most sea FIDs (which cover containerised, break bulk and bulk cargo) are valued at or more than $10,000, while most air FIDs are valued at less than $10,000.

Air (or sea) cargo valued at less than $1,000 is not covered by the FID system, but instead declared through the Integrated Cargo System on a Self-Assessed Clearance declaration. These declarations are not required for the goods that arrive by international mail. The Department has comprehensive processes for inspecting and clearing such cargo. These matters fall outside the scope of the Committee.

In November 2018, the Department (2018b) suggested as an alternative collection mechanism that the Maritime Arrivals Reporting System (MARS) could be used for the collection of the levy. MARS is an online web portal used by commercial vessel masters and shipping agents to submit pre-arrival documents required of all international vessels seeking Australian biosecurity clearance (Department of Agriculture and Water Resources, 2018d).

The shipping agent/commercial vessel master reports arrivals and is given clearance to enter Australian waters and berth via MARS. However, MARS does not relate to, or interface with, cargo; as noted previously, the importer or its customs broker reports via the FID. In some carriage contracts the shipowner has no interaction with the cargo interest whatsoever. As such, MARS is primarily a reporting tool for vessel arrivals; it lacks the necessary structure to impose a levy on incoming cargoes.

However, MARS does generate invoices for the biosecurity-related vessel operator charge ($920 per vessel over 25 metres in length, and $100 for vessels less than 25 metres), and submissions were made to the Committee that this could be used to derive additional revenue from vessels, and in a more equitable manner than a gross vessel tonnage charge.

The Committee supports the imposition of a levy on cargo through the FID, and, if deemed appropriate, the imposition of a levy on vessels through MARS.

6.2 Alternative Suggestions to Raise Levy Revenue

During its stakeholder consultations, Pegasus found some support for a small increase in the fuel excise (and excise equivalent customs duty applying to petroleum products) in preference to a new collection mechanism (Fisher & Davey, 2019, p. 15). Similarly, Fertilizer Australia (2019) suggested to the Committee that the entire revenue for the levy could be collected through a small increase in

fuel excise (which the Committee has calculated at approximately 0.7 cents per litre on petrol – not extending to diesel).

The Australian Chamber of Commerce and Industry (2019) recommended using the Business Activity Statement (BAS) system to collect the biosecurity levy, consistent with its general policy view that the BAS should be used to consolidate existing, more piece-meal, charges.

While noting the simplicity argument for raising levy revenue via a fuel excise, and the consolidation argument for more widely using the BAS system for collection, the Committee does not support either proposal.

Fuel excise would impose the levy on a very broad cross-section of the community, plus it is simple and also arguably would minimise the inefficiency usually associated with taxes. Petrol is generally seen as being price inelastic (that is, demand is relatively insensitive to price changes) which makes it an ideal candidate for the application of Ramsey taxation, first articulated by English economist Frank Ramsey (1927). However, a drawback (from a sustainability viewpoint) is that demand for petrol is now showing signs of decline, so increased petrol taxes risk being a diminishing revenue stream. More importantly from the Committee's standpoint, fuel tax has no relation to biosecurity risk, to which the Committee is required to have regard.

A more comprehensive use of the BAS system requires a much broader public policy debate before it could be contemplated with any confidence, rather than in respect of a biosecurity levy alone.

7. Determining the Level of Risk

7.1 Pathway Risk Assessments

The logical approach to determining biosecurity risk, related to import activities, is to assess import pathways and vectors.

Pathways describe the processes that result in the introduction of alien species from one location to another (Hulme, et al., 2008, p. 403). Alien species may, as a direct or indirect result of human activity, arrive and enter into a new region through three broad mechanisms: the importation of a commodity, the arrival of a transport vector, and/or natural spread from a neighbouring region where it is itself alien (Hulme, et al., 2008, p. 404).

Trade in commodities may lead directly or indirectly to the introduction of alien species from one region to another (Hulme, et al., 2008, p. 403). Many traded commodities may be contaminated with unwanted alien organisms including pathogens on live plants, parasites in domestic livestock, weed seeds in grain shipments, insect pests on timber and any number of species in imported soil (Hulme, 2015, p. 1420). Contaminants can also include food residues, faeces or animal remains (Inspector-General of Biosecurity, 2018, p. 21). While the commodity is introduced intentionally, the contaminant is introduced unintentionally (Hulme, et al., 2008, p. 405).

The arrival and entry of alien species can be associated directly with human transport via one or more vectors (e.g. ship and aircraft) but be independent of a specific commodity (Hulme, et al., 2008). Such introductions are classified as stowaways as they hide in a ship or aircraft in order to travel. Stowaways include organisms that foul the hulls of ships, are transported as seeds or resting stages in soil attached to vehicles and in ballast water, as well as in shipping containers, cargo and airfreight (Hulme, et al., 2008, pp. 405-406). In contrast to contaminants of commodities, the stowaway pathway is defined more by the tempo and mode of transport, rather than any specific attributes of a commodity (Hulme, et al., 2008, p. 406).

Risk assessment is the technical process of evaluating biological or other scientific and economic evidence to determine the level of invasion risk associated with a species or pathway (Shine, et al., 2010, p. 76). It builds on information collected for a target alien species, group of species and/or a specific pathway. Risk assessment provides an objective basis to inform risk management (evaluation and selection of options to reduce the risk of invasive alien species introduction and spread) and risk communication.

Risk assessments underpin alien invasive species policies in many ways, such as informing legislation, providing justification for restrictions in trade or consumer activities, and prioritising surveillance and rapid response (Roy, et al., 2018, p. 526). Increasing transport networks and demand for commodities have led to pathway risk assessments becoming the frontline in the prevention of biological invasions (Hulme, 2009, p. 10).

The Committee recognised from the start of its deliberations the central importance of having robust, science-based biosecurity risk assessments across pathways and vectors in order to inform and underpin its recommendations for the design of a levy.

7.2 Available Information on Risk

The Department is responsible for the integrity of Australia's biosecurity border security. The Department undertakes a range of activities that seek to minimise the threat of pests and diseases along the biosecurity continuum — pre-border, at the border and post-border (within Australia) (Inspector-General of Biosecurity, 2019, p. 15). Included in its pre-border (or offshore) activities are import risk assessments.

The Committee has reviewed a large number of reports and data related to biosecurity risk. It notes that the Department and the Inspector-General of Biosecurity have been able to determine the

biosecurity risks associated with various pathways into Australia. A valuable contribution was provided by the Inspector-General of Biosecurity's Hitchhiker report (2018). Among recent findings and conclusions from the Inspector-General's report and elsewhere are the following:

> *Between 2014 and 2017, 11.3 million containers were imported into Australia. Of those, 10.7 per cent (1.2 million) were inspected in some way and 1.9 per cent (22,260) were found to be contaminated. (Inspector-General of Biosecurity, 2018, p. 8)*
>
> *Hitchhikers and/or contaminants are frequently found in used cars and farm machinery. Even new cars and tractors may be heavily contaminated with seeds that have blown and stuck onto them before export to Australia. (Inspector-General of Biosecurity, 2018, p. 10)*
>
> *Between 2011–12 and 2016–17, 60,855 break-bulk cargo consignments arrived in Australia. Of these, 30 per cent were identified as having a biosecurity risk, 25 per cent were cleaned and 0.5 per cent were fumigated with methyl bromide. (Inspector-General of Biosecurity, 2018, p. 10)*
>
> *Bulk cargo carriers make up about 40 per cent of vessels in the international shipping sector. During 2017, 11,986 bulk carriers arrived in Australia, accounting for over 70 per cent of all vessel arrivals. Most of these carried commodities such as coal or iron ore, so there was essentially zero biosecurity risk of hitchhikers or contaminants inside their holds. Other shipments included plant-based stock feeds, grains, or fertilisers. There was a moderate to high risk that these could bring in hitchhiker pests or contaminants. (Inspector-General of Biosecurity, 2018, p. 58)*
>
> *Aircraft and air cargo pose relatively low biosecurity risks from hitchhikers and contaminants, although insects, especially mosquitoes, and occasionally other animals can hitchhike in passenger cabins or air cargo containers or holds. (Inspector-General of Biosecurity, 2018, p. 61)*
>
> *Biofouling on vessels is recognised as a major pathway for the introduction of non-indigenous marine organisms into Australian territory. If managed ineffectively, this pathway poses an unacceptable biosecurity risk to Australia's environment, economy, social and cultural values from the entry, establishment and spread of marine pests and associated diseases. (Department of Agriculture and Water Resources, 2019)*

In a 2014 submission, the Departments of Agriculture and the Environment (2014, p. 40) provided data on identifications of exotic pests and diseases, reproduced in **Table 5**. The data show that in the most recent years, Departmental identification of pests and diseases were nearly double for arrivals by air than by sea.

An accompanying table in the submission indicated that detections via vessel hulls, for example, are very low, typically less than 10 per year. Most detections are animals (including insects). The Departments noted that in the 2013-14 year, 261,000 items were seized from 17.7 million arriving passengers, and 24,000 mail items were seized from a total of 186 million such items. Seizures indicate goods being brought illegally into the country, but do not always result in the detection of exotic pests or diseases.

Table 5: Departmental Identification of Exotic Pests and Diseases, 2009-2013

Arrival mode	2009	2010	2011	2012	2013
Air	8,859	10,475	11,215	10,198	11,321
Mail	533	775	636	558	750
Sea	7,455	7,317	6,313	5,272	6,169
Unknown	69	165	132	102	126
Total	16,916	18,732	18,296	16,130	18,393

Source: Department of Agriculture and Department of Environment (2014, p. 40).

The Inspector-General of Biosecurity has been conducting further analysis on interceptions, both generally and in regard to the Brown Marmorated Stink Bug. These reports were scheduled for release in April but this has been prevented by the caretaker convention during the federal election so the Committee has not been able to review them.

7.3 Applying a Levy to Cargo Imports

The Committee accepts the view expressed by government that biosecurity funding raised from the private sector should relate to the level of risk created or exacerbated by its different activities. In the course of its deliberations, the Committee has considered a number of options for imposing a levy.

In principle, the Committee accepts the application of a levy on the importation of containers as there are clearly biosecurity risks associated with them.

This includes containerised air cargo, which formed part of the IABR recommendations, but was not included in the Government's original Budget proposal. A number of submissions to the Committee recommended that, on equity grounds and for biosecurity risk consistency, the levy should cover air cargo, via the FID. The Committee agrees.

Also, the Committee accepts the need for a levy on break bulk imports as there is biosecurity risk associated with the importation of break bulk items (such as motor vehicles and machinery), notwithstanding increasing efforts to minimise such risks via offshore treatments and protocols.

The Committee has doubts about a levy on inorganic, inert or liquid bulk commodity imports. Both the original Budget proposal and the Department's revised November 2018 position would have imposed a disproportionate burden on bulk commodity imports (such as petroleum products, cement/clinker, caustic products, etc) for which the biosecurity risk is very low to negligible.

In addition, some of these bulk commodity imports have a low value relative to their mass, so these levy options could represent a significant proportion of the margin generated on each shipment and thus impair the competitive position of subsequent manufacturing processes based on them.

The original Budget levy proposal would have implied approximately $50 million per annum on imports of crude oil and refined petroleum products, or roughly half the total levy revenue stream (Fisher & Davey, 2019, p. 6). The downstream petroleum industry argues that cargo tonnage is a poor proxy for the amount of biosecurity risk presented by petroleum products (Fisher & Davey, 2019, p. 6); the Committee has been presented with no evidence to the contrary.

Similar concerns have been expressed to the Committee by the cement and fertiliser industries. According to the Cement Industry Federation (CIF) (2019, p. 5):

> *It is important to note that cementitious materials are extremely unlikely to pose a biosecurity risk due to the caustic makeup of the product and the related loading conditions of cement clinker remove any opportunity for the material to*

> *act as a biosecurity carrier of exotic pests and diseases. As a result, the CIF has not been able to find a reported cementitious biosecurity incursion in Australia or overseas.*

According to Fertilizer Australia (2019):

> *… many bulk commodities only pose the existing risk of hitchhiker incursions. Furthermore, fertilizer, cement and fuel pose a lower risk due to the desiccating nature of the cargo. A risk based assessment would demonstrate that these pose no increased risk...*

Manufacturing Australia (2019, p. 2) expressed concern that the imposition of a levy on bulk import tonnage would put domestic manufacturers at a competitive disadvantage relative to imports of finished products arriving in containers:

> *The imports are typically low value, low margin, products. Any volume based tax on bulk cargoes therefore results in a tax that is disproportionate to the value of the cargo. Under any such levy, bulk cargoes are taxed at a much higher percentage of value compared to a per-container charge such as that proposed for containerised imports. This discourages domestic manufacturing and encourages imports of finished goods.*

The fundamental problem with the original Budget proposal and the Department's November 2018 position is the mismatch between the source of the revenue and the biosecurity risk, violating the principles of horizontal and vertical equity.

Some bulk commodity imports of an organic nature (e.g. feed grain which may occasionally be imported in a drought year) may warrant the imposition of a levy as the level of biosecurity risk they pose appears much greater. For example, a common contaminant pathway is weed seed transported with international grain shipments and introduced into the wider environment through agricultural activities (Hulme, 2005, as cited in Hulme, et al., 2008, p. 405).

Overall, the Committee supports the imposition of a levy on the importation of containers (both sea and air), break bulk items, and certain bulk items of an organic nature, which represent creators or exacerbators of biosecurity risk. As previously discussed, the Committee supports the imposition of a levy on cargo through the FID.

7.4 Risks Associated with Vessels

The IABR recognised that "vessels themselves also create biosecurity risks" (Craik, Palmer, & Sheldrake, 2017, p. 121). On the face of it, this implies that a levy should apply to vessels if the risk associated with their arrival at the border can be quantified.

The Committee has not received convincing evidence as to the merits of imposing a levy based on gross vessel tonnage, as proposed by the Department in November 2018.

It is less concerned in principle with the fact that a levy on vessels would extend to vessels arriving in ballast to load export cargo: if vessels comprise biosecurity risk, this would include vessels arriving in order to load and carry exports.

However, it notes that cruise shipping vessels – which generally have a high gross tonnage and make multiple arrival calls during any 12 month period – would be disproportionately affected by such an impost.

Concerns regarding a levy imposed on vessels were reflected in a number of submissions received by the Committee. According to Shipping Australia Ltd, in an email to the Committee:

> *… the ship already pays an arrival fee and directly covers the cost of managing its own risks via ballast water treatment systems and managing hull fouling. Also, the only reason a ship arrives is to carry cargo, thus the risk creator is the cargo interest.*

According to the Australian Aluminium Council (2019):

> *… an incoming vessel should face at most a modest charge in proportion to the modest risk posed by vessels (ballast water, hulls, kitchens, etc.)*

According to Llew Russell (2019, p. 7), a former Chief Executive Officer of Shipping Australia:

> *I do not agree that there should be a vessel tonnage levy over and above the existing levy, because biosecurity risk is not related to vessel size. Factors such as the speed and type of vessel, port of loading and climate zones traversed, and cargo carried are all much more relevant in assessing biosecurity risk. There is also the very real likelihood of cascading effects in terms of collecting any such levy.*

Similarly, Glencore (2019, p. 6) observed:

> *Vessel tonnage levy does not relate to whether there is a likelihood of a threat or not. A vessel can be full e.g. fertiliser and not have any biosecurity risks and on the other hand, it can be empty and have a threat in the hull or in the vessel.*

Roughly 18,000 vessels arrive in Australia annually, according to analysis conducted by the Committee. Over 70 per cent of cargo ships visiting Australia are bulk carriers, predominantly to transport Australian bulk commodity exports – such as iron ore, coal and grain – to overseas customers. There are a wide range of other vessel types, from container ships, Roll-on Roll-off vessels, specialised vessels for chemicals, petroleum or gaseous products and vehicles, to break-bulk ships, tankers and livestock carriers.

A number of vessel arrivals comprise private yachts. Several submissions to the Committee argued that private yachts entail potential biosecurity risks and therefore should be subject to a levy. However, from the sketchy data available to the Committee, the number of such vessels appears to be relatively low and so the revenue likely to be collected from them would, as a consequence, also be low. Dealing with their biosecurity risk status would better be done via cost recovery charges of the type already operating, even though there can be a challenge when such vessels arrive at non-mainstream, and potentially quite remote, ports where inspection staff may not be present.

Ship owners and operators incur costs arising from the installation of ballast water treatment systems pursuant to the International Maritime Organization's International Convention for the Control and Management of Ships' Ballast Water and Sediments (Ballast Water Convention) in September 2017. Also included in the vessel operator charge is $110 which subsidises the management of domestic ballast water, even though very few vessels transfer ballast water domestically (Shipping Australia, 2019).

The Department (2019) released a consultation regulation impact statement in April 2019 to address biosecurity risks associated with biological growth (biofouling) on vessels arriving into Australian territory. Under the preferred policy option put forward by the Department (2019, p. vi), vessels will be required to implement effective, vessel-specific biofouling management practices consistent with the direction set by the International Maritime Organization.

If a biosecurity levy were to be imposed on vessels, it should be through the MARS, given that vessels generally transact with the biosecurity agency through the MARS and not the FID.

However, in practice the Committee is not attracted to a levy on the arrival of a shipping vessel.

First, as noted in section 6.1, vessels already pay a biosecurity-related (cost recovery) vessel operator charge on arrival. This charge is $920 for vessels over 25 metres and $100 for vessels under 25 metres. It recovers the cost of activities that support the management of biosecurity risks (Department of Agriculture and Water Resources, 2017, p. 32). In addition, in-office and out-of-office fees apply to the various fee-bearing activities provided to individual clients associated with vessel entries and inspections, such as assessment of documents in relation to a pre-arrival report and ballast water assessment and are time-based charges for involvement of biosecurity staff.

These charges are applied through the MARS. Adding a (non-cost recovery) levy could pose legal issues, although they may not prove to be insurmountable. Any additional unrecovered biosecurity costs relating to vessels could and should be met by increasing the existing charges. There was support among potential payers of a vessel levy for this approach, especially in preference to a gross vessel tonnage levy.

Second, the Committee agrees with concerns that any additional impost on vessels could cascade through the supply chain. The Pegasus Report noted stakeholder concerns that shipping company pricing structures are not always transparent, and as such they could attempt to pass through more than just the levy and a reasonable administration fee (Fisher & Davey, 2019, pp. 11-12). In this regard, the Australian Competition and Consumer Commission (2018, p. 24n) has previously warned, in relation to the terminal handling charges levied by shipping lines:

> *Terminal handling charges (THCs) are ancillary charges collected by shipping lines from cargo owners to recover the cost of paying the stevedores for the loading or unloading of containers and other port-related costs incurred at the port of origin or destination. We understand that there is no consistent manner in which shipping lines calculate THCs and we have observed very large variances in THCs charged by different shipping lines calling at similar ports and similar stevedores.*

On balance, a new levy should not be applied to the arrival of shipping vessels, given that vessels already pay a biosecurity-related (cost recovery) vessel operator charge (plus associated in-office and out-of-office fees) through the Maritime Arrivals Reporting System. Any additional unrecovered biosecurity costs relating to vessels should be met by increasing the existing charge.

7.5 A Risk of Moral Hazard

The Committee has examined several options to impose a levy on each individual FID, both sea FIDs and air FIDs. These options have a number of advantages. First, they are relatively simple and involve an existing collection mechanism, the software of which can be readily amended for the purpose. Second, they are consistent with the second-best proposal put forward by the IABR:

> *If a container levy (sea and air) is considered unacceptable, given a levy was removed in the 2015 cost recovery review, an alternative would be to supplement the charge on Full Import Declarations (FIDs) with a levy to collect a similar amount to the proposed container charge. (Craik, Palmer, & Sheldrake, 2017, p. 121)*

While such options seek to impose a levy on all incoming cargo, a drawback is that, unless highly disaggregated (which in turn would add significant complexity), they take no account of risk between different containerised cargoes, for example. Implicitly, a flat rate levy would treat all FIDs as posing the same level of biosecurity risk.

A corollary could be they may create perverse incentives. This arises from moral hazard, which Paul Krugman (2009, p. 63) has described "as any situation in which one person makes the decision about how much risk to take, while someone else bears the cost if things go badly."

Moral hazard implies a disposition on the part of individuals or organisations to engage in riskier behaviour than they otherwise would, because of a tacit assumption that someone else will bear the costs and consequences if the incurred risk turns out badly (Wolf, 1999, p. 60). Failure to target a levy on the basis of biosecurity risk presented will create an environment conducive to moral hazard (Dowd, 2009, p. 143).

The Chamber of Minerals and Energy of Western Australia (2019) has warned that the absence of a link between biosecurity risk and the imposition of a levy will not incentivise parties to improve their biosecurity risk management practices:

> *Imposing an industry wide levy without nexus to the risk creators, bearers or beneficiaries of biosecurity encourages behaviour that is compliance focused. It fails to provide a price signal to incentivise best practice quality assurance in supply chain management and regulatory stewardship. With federal research and development taxation reforms currently in limbo, such a levy could discourage investment in cooperative biosecurity research programs and continuous improvement initiatives.*

7.6 Access to Data on Risk

The Committee notes that Clause 14 of the Intergovernmental Agreement on Biosecurity requires:

> *Biosecurity investment (to) prioritise the allocation of resources to the areas of greatest return, in terms of risk mitigation and return on investment.*

The Committee requested authoritative, science-based advice from the Department to identify the quantum and relative biosecurity risk generated by the various import pathways. It was advised verbally that the information did not exist. Subsequently, the Committee wrote to the then Minister (see **Appendix 3**). It received some helpful material regarding the biosecurity continuum (such as numbers of passengers, aircraft, ships, FIDs, Self-Assessed Clearances and mail items, and the risk reduction efforts achieved at various points along the continuum leading to a residual risk estimate), but this does not provide a sufficient answer to the Committee's central question.

The Committee also inquired whether information exists from the Department's Risk Return Resource Allocation Model, which is "designed to inform high level, whole of system policy decisions" – analysis which, on the face of it, is quite relevant to the Committee's task. Unfortunately, there appears to be no specific quantitative information available from this model which can assist the Committee.

In addition, the Committee contacted the Centre of Excellence for Biosecurity Risk Analysis, which has been funded in part by the Department to assist it with more sophisticated and quantitative analysis on biosecurity risk issues. The Centre of Excellence also does not have readily to hand a system-wide matrix on biosecurity risk, but considers that the work required to generate it should not be unduly difficult.

Finally, the Committee met with the Inspector-General of Biosecurity who drew attention to recent reports completed by her office. Several of these reports, including the hitchhiker report (Inspector-General of Biosecurity, 2018), contain assessments that are helpful to the Committee, but not in answering the overall question that has exercised the Committee.

Regrettably therefore, while helpful as a general guide, none of the information available from public sources provides a robust basis on which the Committee can base definitive recommendations regarding the share of the levy that should be borne by different import pathways and vectors. Such information as is available tends to be partial, incomplete and often anecdotal.

There is also some conflicting information, for example, regarding the level of risk associated with air freight.

The Committee's conclusion is important given the intention of the levy to raise approximately $100 million per annum against a risk-related assessment. The Committee was not in a position to independently commission the work required to produce the data required to complete its task. Given this, it is not possible for the Committee to recommend the allocation of a levy across cargoes and vessels, when the scientific basis of doing so does not appear to exist. The corollary of this conclusion is discussed in section 9.

8. Other Matters

8.1 Private Sector Investments in Biosecurity Enhancement

The IABR noted that "the total financial contribution by industry to the national biosecurity system is unknown" (Craik, Palmer, & Sheldrake, 2017, p. 108). While some industries conduct their own monitoring and surveillance activities (e.g. 136 programs in the grains and horticulture industries alone), and there are substantial contributions by industry to the activities managed by Animal Health Australia and Plant Health Australia, the full extent has not been documented.

The IABR concluded that the private sector should undertake its own investment stocktake, which *inter alia*, would assist industry claims for a greater role in decision making (Craik, Palmer, & Sheldrake, 2017, p. 128). The Committee sought information as to whether there had been any action following this 2017 recommendation but could find no evidence for it.

Therefore, the Committee requested information from submissions, or in follow up discussions, which might shed light on private sector investments in biosecurity not presently captured by official data, such as cost recovered charges. **Appendix 5** contains information that has been provided to the Committee by a range of companies and industry sectors, including, but also well beyond, the agricultural sector.

Of course, much of this investment is made for sound commercial reasons, such as reducing the risks and/or costs of subsequent import inspection (including, in a worst case, rejection of cargo and diversion of a vessel for re-treatment), enhancing export accreditation or extending market access. However, it indicates, even if in an anecdotal way, that most private sector businesses and industries involved with trade, take their biosecurity responsibilities seriously, in a way that is probably under-appreciated in the wider community and in the public policy debate.

8.2 Military Equipment

The Committee's terms of reference state that the levy is not to apply to military equipment. Some parties with whom the Committee consulted queried why the exemption applies, given there are obvious pest and disease biosecurity risks associated with the arrival of military equipment in Australia. New equipment, equipment being returned from combat or peace keeping zones, or equipment belonging to third countries coming to Australia for use in training exercises, are all examples.

For example, the National Farmers Federation (2019, p. 5) stated that:

> *Incursions of a number of exotic weeds in the Shoalwater Bay Training Area in Central Queensland have been linked to Singaporean army activity in the area, for example: Chromolaena odorata (Siam weed) found in 2013; and the following weeds found in 2011: Indigofera vohemarensis; Asystasia gangetica ssp. Micrantha (Chinese violet); and Sida ciliaris (Bracted fanpetals).*
>
> *The NFF seeks assurances that incoming military cargo is subject to the same … biosecurity protocols and risk assessments as any other imports.*

The Department advised the Committee that as the Commonwealth cannot impose a tax on itself, goods brought by the Department of Defence will not attract the levy. More broadly, Australia maintains "status of forces" agreements with a number of countries, which handle issues arising from the presence of a visiting force in another country's territory. All status of forces agreements to which Australia is a party include an article stating that goods imported into Australia by the visiting force for the use of that visiting force shall be free of all duties and taxes.

The Department manages biosecurity risks posed by returning Australian and visiting foreign forces in a manner consistent with the requirements imposed on commercial operators, and does so in conjunction with the Department of Defence.

In 2018, the Inspector-General of Biosecurity (2018a) published a report on military biosecurity risk management in Australia. It noted that:

> *Military aircraft, vessels, vehicles, equipment and personnel kits provide pathways into Australia for exotic pests and diseases and present special biosecurity risks. Military equipment and conveyances operate in many different international environments and frequently land or arrive in Australia at non-first points of entry. Equipment and conveyances can be specialised and complex, making them difficult to inspect. High security is also often necessary during inspection… Agriculture and Defence use biosecurity policies and training manuals (including cleaning manuals and instructional material for special military inspections) to ensure that biosecurity risks are managed, and roles and responsibilities are clear and understood.* (Inspector-General of Biosecurity, 2018a, p. 5)

> *Agriculture regularly attends planning conferences ahead of major Defence exercises and delivers presentations to raise awareness of Australian biosecurity requirements. It also trains select US defence force and US Department of Agriculture staff in Australia's biosecurity inspection requirements and accredits them as 'Agriculture-approved inspectors.* (Inspector-General of Biosecurity, 2018a, p. 6)

The report concluded that:

> *Agriculture and Defence are cooperating well to manage the biosecurity risks of Australian and foreign military movements into Australia. Biosecurity risk management measures are well planned and well implemented.* (Inspector-General of Biosecurity, 2018a, p. 7)

Five recommendations were made to improve existing procedures. All were agreed to by the Department.

9. The Committee's Assessment

9.1 Assessment of the Biosecurity Levy

The Committee's clear view is that risk creators and exacerbators should pay for the non-pure public good components of biosecurity services that relate to border and pre-border activities. Further, the Committee also considers that the point of imposition and collection should be as close as possible to the actual risk creators and exacerbators.

On this basis, the Committee supports the imposition of a levy on the importation of containers (both sea and air), break bulk items, and certain bulk items of an organic nature.

To the extent that cargo owners/importers are risk creators or exacerbators, a biosecurity levy should be imposed directly upon them and the appropriate collection mechanism is the FID. This is consistent with existing government policy in relation to the collection of other fees, levies, taxes and duties imposed on incoming cargo to Australia.

As discussed in section 7.4, the Committee is not persuaded that an additional levy should be applied to vessels (through the MARS). If there are remaining unrecovered costs on vessels, increasing the existing vessel operator charge (and associated in-office and out-of-office fees) is the appropriate response.

The central challenge of the Committee has been how to apportion the biosecurity levy across different import pathways in line with biosecurity risk, and hence fairness (or equity) to levy payers, as required by its terms of reference.

The Committee invested considerable effort in developing and assessing a range of potential levy designs that which would generate the desired revenue target.

This work is summarised in Appendix 6 and several of the options considered by the Committee are described. While some of them are clearly rejected, others merit further consideration once the biosecurity risk data is available.

While some of these options were clearly better than others, when assessed against the principles that the levy was to be biosecurity risk related and against generally accepted taxation principles, they all suffer from the absence of any clear and demonstrable basis on which to assess the appropriateness of the relative contributions to biosecurity risk generated through different import pathways.

None of the options were considered likely to generate sufficient confidence from industry to generate a sustainable funding basis for the biosecurity function, and the Committee was therefore reluctant to advocate any of these options as the basis for a risk-based biosecurity levy.

The Committee sought advice from the responsible authorities on the source of biosecurity risks to inform its work on several occasions but was frustrated by their inability to provide robust, science-based data on the relative risks attached to the import vectors and pathways. Until the work to produce this information is undertaken, the Committee considers that there is no solid foundation for the selection of a preferred option.

The Committee is disappointed that the government was not able to provide this data, noting separate advice to the Committee from the Centre for Excellence in Biosecurity Risk Analysis that this information should not be unduly difficult to generate.

The Committee is confident that it could quickly finalise and recommend a preferred levy design if that information were to be made available.

Given the Committee's conundrum, it also considered recommending an *imperfect interim design*, which would allow the timetable to be met. This might apply for a 12 months period, and be

associated with a legislative sunset provision. During this period, additional analysis could be conducted to provide the necessary matrix of biosecurity risks across vectors and pathways.

However, the Committee concluded that even that option was undesirable, given the risk that it might become a permanent solution, and the impetus to research the required biosecurity risk profile might be lost.

The Committee has therefore come to the view that, in the absence of authoritative, science-based advice to identify the quantum and relative biosecurity risk generated by the various import pathways, it is unable to determine an appropriate level for a biosecurity levy to apply to such items. Without such information, the robust basis on which a levy could be based, leading to a definitive recommendation that would enjoy wide private sector support, does not exist.

9.2 A Way Forward

Given the Committee's conclusion, it recommends that the Department, the Inspector-General of Biosecurity and/or the Centre of Excellence for Biosecurity Risk Analysis undertake work to establish the quantum and relative biosecurity risk generated by the various import pathways as a matter of urgency. The Committee considers that with an appropriate directive of urgency from the new Minister for Agriculture, this work should be able to be completed within three months or so. The Committee would be open to then being re-convened in order to complete its task if this would assist the process.

The likely impact on various sectors of industry from the design of any future biosecurity levy should also be subject to a Regulation Impact Statement. While a Regulation Impact Statement is required for all Cabinet submissions, this was not undertaken prior to the announcement of the Biosecurity Imports Levy.

The Committee understands that the Department was granted an exemption by the Office of Best Practice Regulation from the requirement to prepare a Regulation Impact Statement, having certified that the IABR could be regarded as an independent review which met the Regulation Impact Statement requirements.

However, the IABR did not consider wider economic impacts on the private sector arising from the imposition of a levy in any depth. In addition, given that the final levy design is likely to differ from that proposed in the IABR, the Committee considers that completion of a Regulation Impact Statement on the levy would be prudent. Promptly handled, the conduct of a Regulation Impact Statement should not lead to a lengthy implementation delay.

10 Recommendations

The Committee recommends:

1. The Committee supports the imposition of a levy on the importation of containers (both sea and air) and break bulk items which represent creators or exacerbators of biosecurity risk. Further, there may also be a case for the application of a levy for bulk cargo, especially organic bulk cargo. The quantum of each levy component to be determined dependent on risk, fairness and competitive impact. (Potential levy options are canvassed in Appendix 6.)
2. The levy should be applied via the existing Full Import Declaration, with the Department of Home Affairs being tasked with making the necessary software adjustments promptly.
3. The Department, the Inspector-General of Biosecurity and/or the Centre of Excellence for Biosecurity Risk Analysis should as a matter of urgency undertake a robust, science-based assessment of biosecurity risk across the various vectors and pathways that is sufficiently detailed to enable values to be attached to the levy components identified in this report.
4. The finalised design of the levy should be subject to a Regulation Impact Statement.
5. Rather than the levy being extended to passengers (once the current moratorium expires in July 2022), the component of the Passenger Movement Charge originally justified for biosecurity purposes (more than $8 per passenger) should be appropriated anew for biosecurity purposes.
6. A new levy should not be applied to the arrival of shipping vessels, given that vessels already pay a biosecurity-related (cost recovery) vessel operator charge (plus associated in-office and out-of-office fees) through the Maritime Arrivals Reporting System. Any additional unrecovered biosecurity costs relating to vessels should be met by increasing the existing charge.
7. A high-level, expertise-based Biosecurity Advisory Council should be appointed to enhance the shared responsibility principle of biosecurity, provide more scope for private sector interests to contribute constructively to important biosecurity decisions, including funding and consideration of relative biosecurity risk, and ensure that levy proceeds are appropriated for additional biosecurity activities.
8. The Department should produce an annual Budget-related paper which would provide a full reconciliation of biosecurity-related revenue and expenditure and thereby assist in clarifying how funds are collected and appropriated, and where they are spent.

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Appendix 1: Ministerial Media Statements and Committee Terms of Reference

Media Statement from the then Minister for Agriculture and Water Resources 24 February 2019

Media Statement

Statement on biosecurity levy

24 February 2019

Australia's agriculture industry is worth $60 billion and at least 300,000 jobs.

If a foreign pest or disease made it into Australia it could ruin agriculture. For instance, if foot and mouth disease was imported into Australia, it would result in at least $50 billion in livestock industry losses.

This would send food prices skyrocketing for everyday consumers.

It makes sense that those who create risk should contribute proportionately to our biosecurity screening.

Most stakeholders accept this.

If the taxpayer is burdened with all the costs of biosecurity, then importers will never take their part of the responsibility of keeping Australia free from pests seriously.

This Coalition Government announced a levy on importers in the last budget to allow us to invest in more efficient biosecurity measures. Invading pests and diseases can come in on the hulls of ships as well as the decks and storage compartments, as well as in the cargo itself.

We've rightly heard concerns of importers around various levy designs the Department of Agriculture and Water Resources has presented during consultation on this levy. Consequently I am establishing an industry steering committee so industry itself can help design the levy.

The levy will help keep our clean green advantage and will be done in a calm and methodical manner. There is too much at risk to our nation if we don't continue to protect our borders.

Media Statement from the then Minister for Agriculture and Water Resources
5 March 2019

Media Release

Announcement on biosecurity steering committee

5 March 2019

Minister for Agriculture David Littleproud has announced the chair and members of the biosecurity levy steering committee.

The committee contains representatives from industry and farm groups to help steer an informed delivery for the levy, which will see importers pay for biosecurity border screening.

The Chair will be Mr David Trebeck. Mr Trebeck currently chairs Australia's Oyster Coast Ltd and has been a non-executive director of six ASX-listed companies since 1997, including GrainCorp Ltd (13 years) and Incitec Pivot Ltd, and has been involved in shipping since 1974.

He was a non-executive director of the shipping company, AP Moller Maersk, a National Water Commissioner, director of the Australian Meat and Livestock Corporation and contributed to the Commonwealth Government inquiries into Long Term Policy for the Agriculture and Food Sector, Fuel Taxation, Biosecurity and three Commonwealth Fisheries. He also worked with the National Farmers Federation from 1972-1983 and co-authored the Beale Review into biosecurity in 2008.

The steering committee will also include Paul Zalei from the Freight Trade Alliance; Margie Thomson from the Cement Industry Federation, Mike Gallacher from Ports Australia, Mike Sousa from Qube Holdings, Rod Nairn AM from Shipping Australia, Brian Lovell from the Australian Federation of International Forwarders, and Tony Mahar from the National Farmers Federation.

"Australia's border biosecurity protects our food supply, 300,000 jobs, the $60 billion agriculture industry and our way of life," Minister Littleproud said.

"If our border biosecurity is breached and say foot and mouth disease entered Australia, consumers would pay much more for meat and the losses to farmers would be around $50 billion.

"Those creating biosecurity risk should contribute fairly to addressing that risk, remembering pests and diseases arrive on the hulls and decks of ships and not just in the imported product itself.

"If the taxpayer alone bears the burden of protecting Australia then companies being bailed out by the taxpayer are unlikely to take our biosecurity seriously."

Minister Littleproud said he was also glad Joel Fitzgibbon has put the following on record:

'Labor supports the rationale for the biosecurity levy. Labor is committed to a properly funded biosecurity system.'

Note: subsequent to this statement, Joel Katz of Cruise Lines International Association – Australasia, and Peter Gniel, from the Australian Institute of Petroleum were added to the Committee.

Biosecurity Imports Levy Industry Steering Group

Terms of reference

Biosecurity risks are changing as import volumes increase and new pathways emerge or become more complex. In the 2018-19 Budget, the Australian Government announced imposing a levy on imports arriving by sea to invest in a stronger, fit-for-purpose biosecurity system.

In the course of the Department of Agriculture and Water Resources engaging with industry about implementation, industry stakeholders raised a number of concerns about the levy, in particular the design and scope of the levy and the limited consultation.

The Australian Government is committed to the Biosecurity Imports Levy. However, in light of continuing industry stakeholder feedback, the Minister for Agriculture and Water Resources is establishing an industry steering committee so industry stakeholders will be better able to support and contribute to the design of the levy.

The steering committee's considerations and recommendations will assist the government in further considering design and scope elements of a levy.

Scope

The steering committee will make recommendations to the minister on a possible scope and design for an ongoing biosecurity import levy, with specific reference to:

- base
- rate(s)
- imposition point(s) of financial liability – including but not necessarily limited to ports, importers, shipping lines, customs brokers and stevedores, and
- collection mechanism(s),

and having regard to:

- processes of importing that might raise biosecurity risks
- the outcomes of consultation on the proposed levy to date
- the inclusion of all containerised and non-containerised cargo transported to Australia by sea, with the exception of military equipment
- simplicity and predictability for levy payers
- administrative efficiency and practicality for affected industry and government, and
- the aim of raising an estimated $325 million (net) over the first three years.

The steering committee's recommendations will be informed by consensus committee views. Dissenting views will be clearly set out and attributed. Information and data supporting conclusions will be provided to support government consideration, including potential costing of proposals by the Department of the Treasury.

Consultation

The steering committee will consult widely, including through the invitation of submissions, within scope, from any interested parties.

All submissions received, and meetings held, by the steering committee will be recorded and appended in full to the committee's recommendations to the minister. All submissions will be placed on the department's website.

If, in the course of the steering committee's considerations, it becomes clear that an industry or sector not already represented within the committee membership or engaged in consultation, may potentially be captured within the committee's recommendations, the committee will invite input from the relevant peak representative body or association.

Membership

The minister will appoint up to 9 individuals to the steering committee. These individuals represent expertise in potentially impacted industry sectors and the supporting industries.

The committee will be led by a respected and independent chair appointed by the minister.

The committee will be supported by a secretariat independent of the Department of Agriculture and Water Resources and of industry.

Timing

The steering group will start immediately and will make recommendations to the minister no later than 1 June 2019.

Resourcing

The Chair will determine administrative arrangements with reasonable costs negotiated with and met by the department.

With the exception of the independent chair, steering committee members will not be remunerated. Committee members will be responsible for the costs of attending any committee meetings.

Appendix 2

List of parties providing submissions to the Committee

- Australian Aluminium Council
- Australian Chamber of Commerce and Industry
- Australian Mushroom Growers' Association
- Australian Pork Limited
- BlueScope Steel Ltd
- Carnival Australia
- Cement Australia Pty Ltd
- Cement Industry Federation
- Conference of Asia Pacific Express Carriers
- Cruise Lines International Association
- Customs Brokers and Forwarders Council of Australia
- Federal Chamber of Automotive Industries
- Fertilizer Australia
- Gas Energy Australia
- Glencore
- Industry Representative Bodies representing a number of Australian horticultural industries, including Australian Almonds, AUSVEG Limited, Berries Australia, Australian Walnut Industry Association Incorporated, Cherry Growers Australia, Chestnuts Australia Incorporated, Citrus Australia, Dried Fruits Australia, Hazelnuts Growers of Australia, Nursery and Garden Industry Australia, Pistachio Growers' Association Incorporated, Protected Cropping Australia, Strawberries Australia Incorporated, Voice of Horticulture, Summerfruit Australia Limited, and Victorian Farmer's Federation
- Incitec Pivot
- Invasive Species Council
- Llew Russell AM
- Manufacturing Australia
- Maritime Industry Australia Ltd
- Minerals Council of Australia
- National Farmers' Federation
- Nippon Steel/Federation of Japan Chambers of Commerce and Industry in Australia
- Sarah Vogler
- Tasmanian Farmers and Graziers Association
- The Chamber of Minerals and Energy of Western Australia
- Tourism & Transport Forum
- The Chamber of Minerals and Energy of Western Australia

Appendix 3: Letter from the Committee Chair to the then Minister for Agriculture and Water Resources

Biosecurity Levy Steering Committee

30 April 2019

The Hon. David Littleproud MP
Minister for Agriculture and Water Resources
Parliament House
Canberra ACT 2600

Dear Minister

I am writing to you as Chair of the Biosecurity Levy Steering Committee.

The Committee has been making substantial progress and expects to complete its task within the nominated time frame. All Committee members are approaching their involvement in a constructive manner. In response to our widely disseminated discussion paper, we received around 25 submissions from a range of companies and industry organisations. We have also met with a number of stakeholders to provide an opportunity for more detailed consultations with the Committee.

We have developed a series of design options which we are analysing and narrowing down. They endeavour to capture the biosecurity risk vectors and pathways which have been identified.

The Committee has reached the point where it needs definitive risk related biosecurity data from the Department of Agriculture of Water Resources. We have had access to a large number of reports and data related to biosecurity risk, including helpful advice from the Inspector-General of Biosecurity, but the information has been partial, incomplete and often anecdotal. Regrettably, it does not provide a robust basis on which we can base a definitive recommendation that will enjoy wide industry support.

Our aim is, consistent with our terms of reference, to provide a compelling rationale for recommendations that will build a sustainable funding base for biosecurity. To this end, we need authoritative, science-based advice to identify the quantum and relative biosecurity risk generated by the various import pathways under consideration by the Committee.

We need the relative contributions to biosecurity risk arising from various pathways in percentage terms, including from:

- containerised cargo
- break bulk cargo
- air freight
- ro-ro vessels
- other vessels, including export
- cruise ships
- organic bulk cargo
- inorganic (inert) cargo.

We would be grateful if you would arrange for the Department of Agriculture and Water Resources to provide this advice as soon as possible. In order for the Committee to meet its deadlines, I would be grateful if this can be provided by 10 May 2019.

Yours sincerely

David Trebeck
Chair
Biosecurity Levy Committee

cc: Lyn O'Connell

Appendix 4

Who Should Pay for Biosecurity Services?

Understanding the Nature of the Product and Who Should Pay

A first step in determining who should pay for the provision of biosecurity services is to determine the nature of the product or service.

Products can generally be categorised as private goods, public goods, or something in between (such as a club good). Differentiating between private goods, public goods and club goods depends on the following characteristics:

- Rivalrous – consumption by one person will diminish the amount that can be consumed by others
- Excludable – whether it is possible to exclude non-users.

Private Goods

Private goods are excludable and rivalrous. If it is physically and economically feasible to identify and charge consumers and to exclude non-purchasers, then a private market will normally develop, provided it is profitable to do so (Productivity Commission, 2001, p. 13).

Public Goods

Public goods have the characteristics of being non-excludable and non-rivalrous. Non-rivalry and non-excludability may cause problems for the production of these goods since their production results in positive externalities which are not remunerated. Externalities (external costs, also known as "spillovers") occur when participants in an activity do not necessarily bear all of the costs or reap all of the benefits from an activity. Because no private organisation can reap all the benefits of a public good which they have produced, there will be insufficient incentives to produce it voluntarily and government intervention in some form is often required to address the under-provision.

Even though all the members of a group may have a common interest in obtaining the collective benefit, they have no common interest in paying the cost of providing it (Olson, 1971, p. 21). Essentially, there is a "free rider" problem that must be overcome wherein each self-interested participant in a collective enterprise has an incentive not to contribute to the group effort and simply "free-ride" the benefits provided by others (Dantiki, 2005).

Members of a large group will only seek to advance the common or group objectives where there is coercion to force them to do so, or where some separate incentive, distinct from the achievement of the common or group interest, is offered to the members of the group individually on the condition that they help bear the costs or burdens involved in the achievement of the group objectives (Olson, 1971, p. 2).

Within the category of public goods a distinction can be made between pure public goods and selective public goods (Department of Treasury and Finance, 2013, p. 11). In the case of pure public goods the consumption, and the benefits arising from that consumption, are available to the community as a whole. In this case the problem of free-riding would be particularly acute. This provides a strong case for the government provision of pure public goods, to be funded by the community as a whole through general taxation.

In the case of a selective public good the benefits accrue only to a specific group (Department of Treasury and Finance, 2013, p. 11). Policy instruments can be designed to enable selective public goods to be funded by the beneficiaries.

Club Goods

A public good that becomes excludable is a club good (McNutt, 2000, p. 928). The thrust of club theory is that the competitive market will function efficiently to provide club goods, so there is no reason that such goods should be publicly provided (Scotchmer, 2002, p. 1999). The basic notion is that agents form groups to confer externalities on each other. Through excludability, individuals who do not contribute to the financing of the club can be prevented, at relatively low cost, of gaining access to the benefits of club membership (Anderson, Shughart II, & Tollison, 2004, p. 176).

There may, however, be a case for the State to support the formation of a club good arrangement where the transaction costs involved in voluntary cooperation are excessive. This could for example take to form of a State-based levy on club members.

Common Pool Resources

A good that is rivalrous but non-excludable can be categorised as a common pool resource. Common pool resources face problems of overuse, because they are subtractable. Common pool resources are in danger of suffering from the *tragedy of the commons*, overexploitation of a resource because of unconstrained access.

These concepts provide some guidance as to the means by which different activities might best be funded.

Private goods, where the benefit of the goods or services are entirely captured by the entities that consume them, are often funded through a direct fee for service arrangement. This ensures that the cost of producing the goods or services are paid for by those who consume them, and avoids the economic inefficiencies involved with general taxation. This is consistent with the Department's approach to cost recovery charges in relation to items such as the AQIS processing fee, the vessel operator charge, as well as well various inspection charges.

The Committee is of the view that the provision of biosecurity services that cannot be cost recovered lies somewhere between a pure public good and a selective public good, depending on the nature of the service. This is consistent with the view expressed by the Productivity Commission (2016, p. 319):

> *Biosecurity has both public good properties and spillover effects (externalities). A pest- and disease-free environment is a public good. If providing such an environment was left to the private sector, this could lead to free-riding on the management efforts of others and result in underinvestment in biosecurity activities. This failure of the market to adequately address pest and disease risks is a major reason for government involvement in biosecurity.*

Activities that are regarded as pure public goods often have significant positive spillovers that benefit the population at large. These activities are generally best funded through general taxation (Productivity Commission, 2001, p. 163).

In the case of public goods, the standard approach is to apply the beneficiary pays principle; this applies to pure public goods and selective public goods. The beneficiary pays principle has been described as being the situation where anyone who benefits from an activity is required to contribute to the cost of undertaking it (Productivity Commission, 2001, p. xxi) The beneficiary pays principle is a commonly used means for attributing costs and recouping them from beneficiaries.

In practice it can be difficult to identify beneficiaries and charge them. Moreover, if beneficiaries pay for only the benefits they receive, spillover effects on others may not be recognised, and the overall level of funding may under-value the benefits to the community as a whole.

Another approach as to who should pay for a public good is to charge risk exacerbators or risk creators. Risk exacerbators are those whose actions create a negative externality or who put a positive externality at risk (The Treasury (New Zealand), 2002, p. 7). Charging risk exacerbators is simply the application of a Pigouvian (or corrective) tax that seeks to charge those creating a negative spillover for the damage they create. It is analogous to the application of the polluter pays principle.

Economist Arthur Pigou (1932) proposed what has become the standard economic response to the treatment of negative externalities. Externalities exist because the market mechanism does not force individuals to take the full social cost of their actions into account, but a tax equal to the divergence between private and social costs will (Upton, 1971, p. 116). The whole policy emphasis of the Pigouvian literature is placed on the relative desirability of encouraging marginal contraction in output of those activities that create negative externalities (Buchanan, 1966, p. 36).

As discussed earlier in the report, the levy is best understood as a tax provided to a group of organisations representing an industry sector. The Committee notes, however, that the biosecurity activities described by the Department as likely to be funded by the proposed Biosecurity Imports Levy appear to represent a mix of public, private and club goods.

In terms of specific expenditure programs to which levy revenue should be applied, the Department (2019b) has suggested these might include:

- Assurance, verification and enforcement
- Modern, Seamless Border Clearance
- Priority Pest and Disease Planning and Response
- Indigenous Biosecurity Rangers Program
- Biosecurity predictive analytics and intelligence
- Emergency response funding
- Biosecurity Innovation Program
- Environmental Biosecurity Protection
- International Ports – Supplementary funding
- Tasmanian Fruit Fly – Emergency Response.

It is not clear to the Committee that all of these activities are best funded through a taxation measure, or that it is necessarily efficient or equitable to seek to fund those activities through a selective levy applied to only some of the parties involved in triggering those costs.

The Committee has carefully considered guidance provided by the Department of Finance (2014, p. 2) to the effect that a cost recovery levy differs from general taxation as it is 'earmarked' to fund activities provided to the group that pays the levy.

The Committee notes that as presently envisaged, the proposed Biosecurity Imports Levy is not clearly 'earmarked' to fund activities required by or provided to the entities that are likely to pay it, and that many of the activities that have been identified by the Department as likely to be funded to the levy have only a tenuous relation to the surface transport import sector.

Risk Exacerbator / Beneficiary Model for Funding

Table 6 provides a list of the beneficiaries and risk exacerbators of biosecurity.

Table 6: Beneficiaries and Risk Exacerbators of Biosecurity

Use Beneficiaries	Non-use Beneficiaries	Risk Exacerbators
Exporters	Public Health	Importers
Agricultural Industries	Ecosystem Services	Tourists
Forestry Industry	Indigenous Biodiversity	Agricultural Industries
Fishing Industry	Future Generations	Transporters
Commercial animal breeders	Community Ecological Amenity Community Health	
Future generations in these industries		
Tourism Industry		

Source: Adapted from Parliamentary Commissioner for the Environment (New Zealand) (2000, p. 64).

Biosecurity is a compliance cost for most importers (producers or traders) (Parliamentary Commissioner for the Environment (New Zealand), 2000, p. 64).

Goods carriers and distribution organisations are also risk exacerbators (Parliamentary Commissioner for the Environment (New Zealand), 2000, p. 64). Biosecurity clearance requirements impose costs and delays on this group and on ports, although ports also benefit, in terms of export trade, in having biosecurity controls in place to meet export market requirements.

Travel and tourism interest in biosecurity is mixed – the industry is a beneficiary, but travellers are risk exacerbators (Parliamentary Commissioner for the Environment (New Zealand), 2000, p. 64). Tourists bring themselves and any attached unwanted organisms into primary production areas and indigenous ecological areas. In effect, they are a streamlined conduit between foreign countries and national parks. The main private sector beneficiary of biosecurity is agricultural industries.

In New Zealand there has been discussion and movement towards an exacerbator/beneficiary model for biosecurity, recognising that there are those who contribute to increased biosecurity risk, and those who have an interest in reducing or eliminating that risk (Parliamentary Commissioner for the Environment (New Zealand), 2000, p. 65).

This model has strengths and weaknesses. Its primary strength is that it acknowledges private benefit in addition to the public good component of biosecurity. Its weaknesses include the difficulty in identifying exactly who the exacerbators and beneficiaries are and what their liabilities are, and determining an appropriate level of contribution from each towards the total biosecurity infrastructure.

The Parliamentary Commissioner for the Environment (New Zealand) (2000, p. 65) stated:

> *Despite its weaknesses, the exacerbator/beneficiary model is the preferred one from an environmental management standpoint, as long as it incorporates distinct private and public sector contributions and maintains a central government responsibility and capacity, particularly for pre-border and border activities. This model recognises the increasing threat to natural ecosystems and allows for those who increase the risk to contribute to alleviating that risk. There will never be a final correct allocation of these costs, but this weakness should not be a reason to delay the implementation of the funding model.*

The adoption of the exacerbator/beneficiary model is entirely consistent with both the original and the current Intergovernmental Agreement on Biosecurity. Clause 16 under the heading of key biosecurity principles of the current Agreement that came into effect on 3 January 2019, requires:

> *Governments contribute to the cost of risk management measures in proportion to the public good accruing from them. Other system participants contribute in proportion to the risks created and/or benefits gained. (Council of Australian Governments, 2019, p. 3)*

While it appears that all Australian governments have embraced the adoption of an exacerbator/beneficiary model for funding biosecurity, it appears that it has not been comprehensively applied in practice.

Appendix 5: Examples of Private Sector Investments in Biosecurity

Federal Chamber of Automotive Industries

Over the past decade Thailand has become an increasingly important source of new motor vehicles for the Australian market; it is now the number two source country behind Japan. The New Motor Vehicle Inspection Program was negotiated between the Thai Department of Agriculture and the Australian Department of Agriculture and Water Resources, with the Australian industry's heavy involvement. Its purpose was to identify supply chain initiatives which could mitigate biosecurity risks. The program involves training and accrediting personnel in Thailand to inspect, clean and certify that new vehicles being exported to Australia are free from biosecurity risk material. It also involves the Thai Port Authority improving the weed and pest environment around the terminal area, with regular inspection and maintenance. Improved communications are also vital.

Since implementation, the number of contaminated new vehicles being detected in Australia from Thailand has reduced by more than 90 per cent, despite import volumes rising by 30 per cent between 2013 and 2017. The program requires all parties to acknowledge that biosecurity is a shared responsibility, with everyone committed to reducing risk. Commercial benefits, which follow significant industry investments, are seen in terms of faster clearance at arrival and lower costs.

Source: Federal Chamber of Automotive Industries, information provided to the Committee

Minerals Council of Australia

RightShip, a company equally owned by Rio Tinto, BHP, and Cargill, is regarded as the world's leading maritime risk management and environmental assessment organisation, with offices in Melbourne, London, and Houston. In addition to current vetting procedures that ensure the best-suited vessel is selected for the appropriate cargo, in 2016 RightShip introduced a predictive online tool, RightShip Qi, which improves maritime safety and efficiency by analysing, comparing and integrating data such as port control inspections, casualty history, satellite data and terminal feedback to identify anomalies and trends. This tool is used in addition to biosecurity inspections and invasive marine species risk assessments conducted on in-bound vessels into Australia.

Source: Minerals Council of Australia, information provided to the Committee

Horticultural organisations

Specific examples of biosecurity investment within the almond, citrus, nursery and vegetable/potato industries.

Funded positions

Vegetable/potato biosecurity officers (a three-year $720,000 farm biosecurity project, funded by Plant Health Australia); vegetable biosecurity adviser (funded by Horticulture Innovation - $34,000); National nursery industry biosecurity program ($3.8million over 5 years, 5 positions); National citrus surveillance coordinator ($200,000 per year over 3 years).

Specific surveillance

iMapPESTS (a $800,000 cross-industry project - managed by Horticulture Innovation); Almonds ($325,000 to 2021, Horticulture Innovation funding contribution to the sentinel bee hive program); Almonds (enhanced virus detection testing of imported plant material, funding via Horticulture Innovation); Production nurseries (for principal endemic plant pests such as Red Imported Fire Ants, Myrtle rust, Whitefly, Scales, snails, and various viruses, annual costs at least $14.5 million/annum, assumes 4000 businesses investing 2 hours/week at an hourly rate of $35); Citrus export surveillance covers citrus canker, Huanglongbing, Asian Citrus Psyllid, Citrus Variegated Chlorosis and Glassy Winged Sharpshooter.

General surveillance

Dried Fruits Australia (surveillance as part of quality assurance scheme and field days to improve grower awareness); corporate almond producers (employ or contract pest and disease monitoring staff or contract these services, as do large vegetable/potato producers); production nurseries (crop monitoring and site surveillance activities, for example, monthly site surveillance for Red Imported Fire Ants); citrus export assurance program (covers 11,000 ha and involves surveys by registered crop monitors to confirm the absence of quarantine pests for Korea, China, and Thailand markets).

Specific incursion responses (industry expenditure)

- **Cucumber green mottle mosaic virus:** reduced NT melon production by 30% or $15 million and vegetable growers by at least $250,000
- **Tomato potato psyllid:** substantial but unquantified expenses and production losses
- **Varroa Jacobsoni:** eradication cost to the honey bee industry, part funded by almond producers as an affected industry requiring pollination services, $317,000
- **Khapra Beetle:** Almond Board of Australia funded eradication plans for incursions of Khapra Beetle in South Australia and more recently Victoria; $11,000
- **Red Imported Fire Ant:** costs to the Queensland nursery industry assessed at $18 million/ annum in property mitigation measures, lost trade, market access, administration, preventative treatments/barrier treatments, and compliance costs
- **Myrtle Rust:** assessed in 2012 to cost the nursery industry in Queensland, NSW and Victoria $27 million/annum to manage the pathogen - crop management, lost trade, market access, administration, and loss of commercial varieties; subsequent detections in Tasmania and NT
- **Citrus Canker:** eradication occurring in NT and Northern WA, with industry committing 20% of the costs, via a $1.00 per tonne levy for 5 years, or $18 million
- **Chestnut blight:** eradication program has cost industry over $4 million
- **Black Sigatoka:** the banana industry temporarily suspended fruit movement following a 2001 incursion in Queensland; growers contributed to a plant production levy involving monitoring and inspection via a Disease Management Officer and eight field staff.

Preparedness programs

- Tomato potato psyllid coordinator –$642,000 over three years
- Almond industry - simulated varroa mite incursions and response training
- National potato industry biosecurity surveillance strategy – surveillance pilots, consultation and implementation plan - $240,000
- Building resilience and on-farm biosecurity capacity within the nursery industry - enhances biosecurity preparedness via expertise, innovation, collaboration and frontline delivery - $1.4 million over 5 year (2016 – 2020)
- Control, eradication and preparedness for vegetable leaf miner - surveillance toolkit, rapid genetic diagnostics focusing on studying the distribution, future spread, and potential control/ eradication - $1.8 million over 4 years (2017 – 2020)
- Citrus study tour to international conference and farm visits to assess impacts of citrus pests and surveillance activities and raise industry awareness - $60,000 funding shared between participants, Horticulture Innovation, and Citrus Australia.

Source: Combined horticultural organisations (Almond Board of Australia, Australian Walnut Industry Association, AUSVEG, Berries Australia, Cherry Growers Australia, Chestnuts Australia, ..., Voice of Horticulture, 2019)

BlueScope Steel

BlueScope's current contribution to the overall biosecurity system includes procedures and equipment at the point of entry to ensure an immediate response to a suspected biosecurity risk. This includes training under an Approved Arrangement with the Department to discharge recycled steel products from New Zealand across company owned berths. Over thirty BlueScope and contractor personnel associated have undertaken Biosecurity Awareness training and Approved Arrangement Accreditation, funded by BlueScope.

Source: BlueScope Steel (2019)

Carnival Australia

Australian cruise ship vessels are highly regulated in terms of biosecurity risk (passenger movements; biofouling; ballast water; food and waste; and animal, plant and insect threats). Risk management plans cover all relevant areas and the company employs on-board environmental officers.

Source: Carnival Australia (2019)

The Chamber of Minerals and Energy of WA

Western Australia has developed world first in-water hull cleaning systems, dieback pathogen eradication and molecular detection techniques for marine pest incursions. The resource sector contributes over $8 million pa towards research at the Botanic Gardens, tertiary institutions, biosecurity groups and not-for-profit organisations. Some member companies employ Indigenous rangers to detect and eradicate exotics.

Source: The Chamber of Minerals and Energy of WA (2019)

Australian Pork Ltd

The Australian pork industry has invested in biosecurity through research, quality assurance, livestock traceability, and disease preparedness programs. Most commercial sows are farmed under the Australian Pork Industry Quality Assurance Program, a program developed and administered by industry, which requires producers to be audited against comprehensive biosecurity standards. APL administers PigPass – a livestock traceability system designed to enable rapid response to an emergency animal disease outbreak – and contributes to industry/government programs, training and response plans to ensure animal disease preparedness, surveillance, response and recovery.

Source: Australian Pork Ltd (2019)

Cruise Lines International Association - Australasia

The Cruise Ship Accreditation Scheme was developed by the industry with New Zealand's Ministry of Primary Industries. It has reduced the risk of passengers bringing prohibited food items into New Zealand, enabling the Department to reduce its costs of passenger clearances for accredited cruise ships. As a result, from 1 July 2019 the biosecurity component of the NZ border clearance levy will be reduced for cruise passengers. Cruise ships are accredited after demonstrating processes for the safe sourcing and storage of food. Passenger announcements are made before arrival; messages and banners are prominently displayed to warn passengers that food cannot be taken off the ship.

Source: Cruise Lines International Association – Australasia (2019)

Australian Aluminium Council

Aluminium companies implement measures to manage biosecurity risks, including ballast water management, kitchen and pantry surveys for possible food-borne risks, more intensive inspections if the vessels carried cargoes with high biosecurity risks on previous voyages, and the use of vetting tools to ensure appropriate ships are utilised with a known shipping history.

Source: Australian Aluminium Council (2019)

Glencore

Biosecurity measures undertaken include: fumigation of import cargo originating from target risk countries, for example Giant African Snail and Brown Marmorated Stink Bug, at an estimated cost of $650 per container, and First Point of Entry Biosecurity program, involving training, preparation of training material, emergency response procedure updates, and purchases of sprays and response kits.

Source: Glencore (2019)

Fertilizer Australia

Fertiliser companies contribute $1/tonne towards a voluntary biosecurity scheme, which is an offshore, pre-shipping inspection and supply chain auditing process. This scheme significantly reduces Departmental costs (as there are less inspections) and reduces the risk of a shipment being rejected. It was developed and is managed in conjunction with the Department and involved significant industry investment in its development.

Source: Fertilizer Australia (2019)

Appendix 6: Summary of Alternative Options Considered by the Committee

Table 7 below summarises the Committee's consideration and assessment of a range of alternative options.

The first three (shaded) options were developed or presented by government prior to the then Minister's reset of the process in March 2019 and are presented for comparative purposes only. The Committee does not consider that any of these options provide an acceptable, fair or efficient basis for a biosecurity levy.

The following three (options 4 to 6) present more or less differentiated approaches that seek to satisfy as many of the design constraints as possible. They all rely on FID as the primary collection mechanism. Clearly, it is possible to add or subtract variations in coverage and levy rates to the options to modify impacts on different import pathways.

All of the options would generate around the amount identified in the 2018 Budget.

While some of these options were clearly better than others, when assessed against the objective that the levy was to be biosecurity risk related and against generally accepted taxation principles, they all suffer from the absence of any clear and demonstrable basis on which to assess the appropriateness of the relative contributions to biosecurity risk generated through different import pathways.

None of the options were considered likely to generate sufficient confidence from industry to generate a long term funding basis for the biosecurity function, and the Committee was therefore reluctant to advocate any of these options as the basis for a long term levy without better information on risk attached to different pathways and cargoes.

Other options were suggested in submissions and were therefore carefully considered by the Committee. These included a flat rate increase in petrol excise and increases in vessel import processing charges. While the Committee appreciated the thought that had gone into the proposals, these options were ultimately rejected by the Committee as being inequitable and not closely related to biosecurity risks. While there may be a case for trade-offs between levy rates and cost recovery charges, the Committee considered that any change to cost recovery charges need to be assessed in terms of their relationship to the actual costs incurred in providing relevant services.

The Committee sought advice from the responsible authorities on the source of biosecurity risks to inform its work on several occasions but was unable to obtain robust, science-based data on the relative risks attached to the import vectors and pathways. Until the work to produce this information is undertaken, the Committee considered that there was no solid foundation for the selection of a preferred option.

The Centre for Excellence in Biosecurity Risk Analysis has advised that this data should not be unduly difficult to generate. When this information is available, the Committee considers that it would be able to move quickly to finalise and recommend a preferred option.

Table 7: Summary of Options Considered by the Committee

Option	Details	Collection mechanism	Considered/ Rejected	Comment
1. Government 2018 Budget Proposal	$10.02/TEU $1/tonne break bulk $1/tonne bulk	New collection mechanism(s) that were not fully defined to be imposed on port operators	Rejected	Not biosecurity risk related – high volume low risk bulk bears majority burden – unacceptably high charge on low value bulk Excluded some risk creators (air, passengers) Disproportionate impacts on some low-risk bulk importers Investments by industry in collection mechanisms required Collection costs would be cascaded and increased through supply chains Serious and unassessed impacts along the import chain
2. DAWR option November 2018	$10/TEU $1/tonne break bulk $0.50/tonne bulk $0.027/ton gross vessel tonnage	Not well defined. Likely to require multiple new mechanisms applied to vessel owners, operators or their agents.	Rejected	Not biosecurity risk related Excluded some risk creators (air, passengers) Double charging on vessels already subject to cost recovery charges Would be applied to empty vessels (and hence exports) New charging mechanisms would be required Collection costs would be cascaded and increased through supply chains
3. Alternative proposal put forward by DAWR January 2019	$10/TEU $1/tonne break bulk $0.059/ton gross vessel tonnage	Collection mechanism unclear, but presumably applied to port operators or vessel owners, operators or their agents	Rejected	Not biosecurity risk related Excluded some risk creators (air, passengers) Excluded some higher risk, organic bulk imports Collection costs would be cascaded and increased through supply chains Double charging on vessels already subject to cost recovery charges Increased impacts on empty vessels (and hence exports) New charging mechanisms would be required

4. Differentiated FID based on sea and air cargo	$W/Sea FID<$10,000 $X/Sea FID≥$10,000 $Y/Air/Mail FID<$10,000 $Z/Air/Mail FID≥$10,000	FID	Retain for further consideration	**Not biosecurity risk related** No evidence that risk is related to value Captures air & ocean freight over $1,000 in value Captures Break Bulk & Bulk cargo in a per shipment fee No specific container component, but on a per shipment basis Excludes vessels (already subject to cost recovery charges) Excludes passengers (already subject to the PMC) Relatively simple to administer Uses existing collection mechanism (FID) Could be considered as an interim measure
5. Differentiated levy based on cargo categories	$V/LCL[#] per consignment $W/FCL* per container $X/per unit, VIN[μ], tonne of break bulk $Y/bulk consignment (inorganic) $Z/bulk consignment (organic)	FID	Retain for further consideration-subject to Biosecurity Risk Data provided by Department.	**Not biosecurity related but could be tailored to be so once biosecurity risk data is provided** Could potentially capture various cargo categories based on the level of biosecurity risk (once biosecurity risk data is provided) Uses existing collection mechanism Excludes passengers (already subject to the PMC) Any impost on inorganic bulk difficult to justify on risk grounds Charge for break bulk to consider the substantial direct costs already incurred by this sector for risk mitigation treatments, compliance and inspection Excludes vessels (already subject to cost recovery charges) [#] Less than Container Load * Full Container Load [μ] Vehicle Identification Number

6. Differentiated levy based on cargo categories	$T/Air/Mail FID<$10,000 $U/Air/Mail FID≥$10,000 $V/LCL per consignment $W/FCL per container $X/per unit, VIN, tonne of break bulk $Y/bulk consignment (inorganic) $Z/bulk consignment (organic)	FID	Retain for further consideration - subject to Biosecurity Risk Data provided by Department.	**Not biosecurity related but could be tailored to be so once biosecurity risk data is provided** Could potentially capture various cargo categories based on the level of biosecurity risk (once biosecurity risk data is provided) Captures air freight Uses existing collection mechanism Excludes passengers (already subject to the PMC) Any impost on inorganic bulk difficult to justify on risk grounds Charge for break bulk to consider the substantial direct costs already incurred by this sector for risk mitigation treatments, compliance and inspection Excludes vessels (already subject to cost recovery charges)