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Department of Agriculture, Fisheries and
Forestry

Sustainable funding and investment to strengthen biosecurity outcomes

Department of Agriculture, Fisheries and Forestry consultation – Sustainable funding and investment to strengthen biosecurity outcomes

Submission from Charles Sturt University

Response to discussion paper questions

1. Considering the potential funding options and opportunities above, as well as from your experience, what elements do you think a sustainable biosecurity funding model should include? Are there elements that should not be included; if so, why?

Shared responsibility has become established as a core principle underpinning Australia's approach to managing biosecurity threats. To ensure that the national biosecurity management framework is sustainable, and in recognition of the public good nature of biosecurity management, shared responsibility means shared funding, with state and federal governments, the food industry and producers all providing some funding to support the system as a whole.

Components of the model could include industry levies, licensing fees, fee-for-service and cost recovery arrangements, and import duties (consistent with Australia's obligations under WTO and bi- and multilateral free trade agreements).

While some funding would need to be kept in reserve to respond to biosecurity issues as they emerge, the bulk of the financial resources available for biosecurity should be dedicated to proactive measures to strengthen Australia's ability to detect, eliminate, respond to or manage biosecurity threats, including by:

- education, training and professional development,
- research and innovation,
- boosting technical and technological capabilities,
- developing and maintaining appropriate reporting, data management and data sharing frameworks, and
- building global networks and near neighbour capacity to strengthen incursion prevention prior to reaching Australian shores.

2. How would your proposed model operate at a practical level and who would it apply to?

The model would apply to all components of the food industry including producers, distributors, and all importers, since the risk of biosecurity incursions is not limited to food and agricultural products. Where possible, financial contributions from government and industry partners in Pacific and near neighbour countries should be included, along with appropriate measures for inbound travellers from high-risk areas.

One key measure is arrangements (including funding) to support collaboration between universities (especially those with campuses in agricultural areas), industry, research organisations such as the CSIRO, and state and federal government agencies. Effective collaboration across jurisdictions and between sectors, supported by targeted funding, would lead to more rapid capability development, faster detection and response, and more efficient delivery of biosecurity activities.

An example of this kind of collaboration is Charles Sturt University's Training Hub for Regional Industry and Innovation in Virology and Epidemiology (THRIIVE). This \$4 million initiative is funded through the Australian Government's Regional Research Collaboration Program. It will build national and international collaborations for dealing with viral biosecurity threats, with partners including national and international zoonotic virology research institutes, CSIRO, Monash University, The University of Melbourne, the Australian National University, Meat and Livestock Australia, and Australian Pork Ltd.

3. How would your proposed model impact you and others? What would be the benefits or disadvantages to you and/or other stakeholders?

A key benefit from a shared responsibility/shared funding model is wider knowledge of the scale and potential impact of biosecurity risks to Australia's industries, environment, lifestyle and culture, with concomitantly greater willingness to take the necessary action to deal with such risks.

For Charles Sturt, one important impact would be better awareness and use of the University's expertise in biosecurity research and education. The University's location across several of Australia's major agricultural regions makes it an ideal bridge between government, industry and the education and research sectors. The University already has firmly-established partnerships with producers and processors, ag tech and agribusiness firms, and regional, state and federal government agencies, as well as international linkages. These partnerships supported by world class teaching and research facilities and recognised expertise in biosecurity education and research.

For industry, the benefits include more effective risk management and mitigation at a lower cost than might be possible for individual organisations acting on their own.

4. Is the proportionality between those who contribute to the funding system and those who benefit the most, right?

Yes, provided that the funding system is predicated on the principle of effective biosecurity management as a public good. Public and political recognition of the importance of managing biosecurity risks is vital, as is the recognition that managing these risks involves direct and indirect costs to all Australians.

5. Are there other technologies, current or emerging, that could be employed to increase the efficiency of the biosecurity system, and perhaps reduce operational cost?

Charles Sturt suggests that there is considerable benefit attached to better sharing of data. As noted in the University's submission to the recent Senate Standing Committee on Rural and Regional Affairs and Transport inquiry into the adequacy of Australia's biosecurity measures and response preparedness, while there is good understanding of the science associated with preparing for and responding to biosecurity threats, effective management of both threat and response requires data management, sharing and analysis and the associated uptake of new technologies and work practices – areas in which there is considerable room for improvement.

At present in Australia much of the data relevant to biosecurity exists in disconnected, isolated or incompatible datasets managed by individual producers and businesses, industry bodies and local, state and national government agencies, limiting our preparedness for responding to biosecurity threats.

Charles Sturt University is part of an MLA-led project, the Australian AgriFood Data Exchange. The project aims to establish a national agricultural industry data exchange platform to facilitate the sharing of data across all levels of Australian agriculture. In addition to its potential impact on agricultural production, product traceability, compliance and food security, the Exchange will enhance national capabilities in biosecurity threat management and response.

There is also considerable potential benefit in the adoption of technologies including:

- data analysis tools,
- smart imaging systems, especially coupled with AI to enable automated detection of diseases and organisms
- remote and smart sensors (including livestock tagging)
- AI and VR in training and detection

6. How could the Commonwealth Government improve efficiency in the biosecurity system (consistent with meeting our Appropriate Level of Protection)?

There is an urgent need for better national coordination on biosecurity, especially between state governments, and with the Australian Government. Coordination at present is limited, leading to inefficiencies and a higher risk of a biosecurity incident that might otherwise be the case.

One key strategy for improving coordination and efficiency in the biosecurity system is collaboration to boost the knowledge and capabilities in frontline border staff, field personnel, industry, and the community. The

Biosecurity Training Centre (BTC) at Charles Sturt University, funded by DAFF, is already providing up-to-date training for frontline staff in Australia and in neighbouring countries. The programs offered at the BTC could be made available to state government and industry partners, potentially in tandem with training of Border Force and DAFF staff, thereby improving links across different parts of the biosecurity management system.

BTC also has the potential to provide education and extension services to producers, processors and transport firms – within Australia and in near neighbour countries.

Charles Sturt University also suggests that there is significant benefit to ensuring that education, training and professional development for veterinarians and their staff could bolster national and Asia-Pacific regional capabilities in biosecurity detection and response.

7. What other investments or actions could the Commonwealth Government make or take to sustainably support the delivery of biosecurity activities?

As noted in the University's submission to the recent Senate Standing Committee on Rural and Regional Affairs and Transport inquiry into the adequacy of Australia's biosecurity measures and response preparedness, and in this submission, potential areas for action include:

- more inclusive consultation on biosecurity responses involving biological control (e.g. viruses), including engagement with First Nations peoples as a priority,
- improving the knowledge and skills underpinning on-the-ground Emergency Animal Disease investigation and response, including via more effective coordination of state and Commonwealth training initiatives,
- the development of biosecurity crisis communication and emergency management frameworks,
- community awareness and preparation programs,
- scalable training programs,
- further investment in new models for training and upskilling, including accredited microcredentials and the use of augmented and virtual reality technologies,
- improved data-sharing to support faster detection and response, for example using the Australian AgriFood Data Exchange.

Above all, Australian Government, state government and industry strategies on and funding for biosecurity need to shift from a reactive to a proactive approach. The shared funding model needs to be proactive and dynamic if it is to be sustainable. This means a greater emphasis on capability building (education and training), improved strategic infrastructure (particularly in the digital space), collaboration, and research into biosecurity threats, detection, mitigation, management and response. A National Centre of Excellence in Biosecurity would provide a useful foundation for collaboration and coordination, as well as supporting work on each of the actions listed above.