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IGAB Review Panel

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Dear Review Panel

## **INTERGOVERNMENTAL AGREEMENT ON BIOSECURITY REVIEW DRAFT REPORT**

In response to the invitation to provide comment on the ideas and suggestions contained in the Draft Report, the Rural Industries Research and Development Corporation (RIRDC) wishes to submit the attached proposal.

Noting that in Section 6 (Research and Innovation) the Draft Report makes specific reference to RIRDC, and its potential to manage cross-system biosecurity issues, the RIRDC Board has considered it appropriate to provide a positive response. Accordingly, this submission is largely focused on Section 6, particularly 6.3.3 – *Future-focussed biosecurity research and innovation* – and Option 2 for the future coordination of cross-sectoral biosecurity R&I.

In attempting to put forward constructive suggestions for the ongoing management of cross-sectoral biosecurity R&I, RIRDC is cognisant of the very significant challenges in this area. Nonetheless, as noted in this submission, there is a pressing need for change and improvement – a view endorsed by all stakeholders consulted.

It is emphasised that the scope of RIRDC's proposed coordination/leadership role should be confined to biosecurity R&I topics where there are obvious benefits in adopting a cooperative, collaborative approach for mutual benefits across industries, rather than separate RDCs investing in wasteful, segregated duplication of effort. It is proposed that this approach be initially trialled for a three-five year period, concentrating on a limited number of topics of mutual interest. Some specific funding arrangements are suggested for this initial period.

Yours sincerely,



John Harvey  
Managing Director



# **IGAB REVIEW DRAFT REPORT**

## **RESPONSE FROM RURAL INDUSTRIES RESEARCH AND DEVELOPMENT CORPORATION (RIRDC)**

In compiling their draft report (December 2016), the IGAB Review Panel has considered many submissions and has gathered an impressive amount of information about the various facets of Australia's biosecurity system, its capability and effectiveness. The draft report is comprehensive and wide-ranging, identifying various areas where improvements are needed. This submission is largely confined to Section 6 (Research and Innovation), particularly cross-sectoral biosecurity research and innovation (R&I).

### **Cross-sectoral biosecurity R&I**

As noted by the IGAB Review, Australia's biosecurity system is extensive and complex – also multi-faceted and multi-layered. Its effectiveness depends on contributions from all governments, stakeholders and the broader community.

While there still appears to be considerable investment in biosecurity research and development across the various agencies, institutions and organisations, and we pride ourselves on the strengths and benefits of the system, there are some significant gaps and deficiencies that need attention – including the coordination and delivery of cross-sectoral biosecurity R&I. This is a particularly challenging area due to:

- The number of players, including Commonwealth and state/territory governments, RDCs, CSIRO, universities, AHA and PHA, national industry organisations, environmental groups etc;
- A lack of clear, agreed national (cross-sectoral) R&I priorities;
- A lack of decisive leadership and effective coordination in cross-sectoral biosecurity R&I;
- The difficulty of attracting long-term investment, particularly from RDCs who are primarily focused on delivering benefits for their respective levy payers;
- Cross-sectoral biosecurity R&I usually involves longer-term projects, with less-predictable outcomes (and return on investments);
- The difficulty in calculating proportionate financial contributions, based on the likely beneficiaries and the anticipated values of those benefits;
- The significant decline in biosecurity-related investment and capability in some states and territories;
- The particular challenges in addressing biosecurity issues in the marine/aquatic and environmental areas;
- The need to take account of the linkages with public health and food safety; and
- The lack of formal linkages between government and industry biosecurity management processes.

Australia has a complex funding environment for biosecurity R&I. Funding arrangements span multiple levels of government, the 15 RDCs, direct private investment and less frequently, international funding sources. While each of these

bodies has processes in place to support high-quality research, there is no effective mechanism to define common priorities and align objectives between those priorities. The benefits of a clear national priority-setting process, accompanied by funding arrangements that recognise those priorities, are widely accepted.

In the context of cross-sectoral biosecurity R&I, an ability to coordinate the work of Australia's various biosecurity research institutions, together with clear funding arrangements for high-priority national research would also serve as a powerful incentive to encourage collaboration among both researchers and institutions, and to reduce some of the less constructive aspects of competition.

In considering national biosecurity R&I priorities, there is a strong argument that a greater proportion of funds should be spent on proactive prevention (including research), rather than the extensive management of established pests and diseases – dealing with incursions after the event, which are invariably expensive, resource-hungry exercises. Historically, Australia has expended very significant resources on emergency control and eradication measures – often unsuccessfully.

While the National Animal and Plant Biosecurity Strategies (coordinated by AHA and PHA respectively) have attempted to build on a collaborative approach and identified various areas requiring attention, actual achievement in R&I projects has been disappointing. There have been significant difficulties in attracting adequate investment by governments, industry and RDCs.

A positive step has been the recent initiative by the seven plant-based RDCs, to develop guiding principles for plant biosecurity research, to ensure a successful cross-sectoral approach is used to manage and coordinate the national plant biosecurity RD&E agenda. This constructive stratagem is a pleasing development, which can be regarded as complementary to the wider-ranging RIRDC proposal.

Most aspects of Australia's biosecurity system are presently covered by existing organisations. There is general agreement that greater complexity or more structures are not required. What is needed is a more formal national coordination process (business model) that is more transparent and proactive, that utilises and draws together existing organisations, structures and resources.

In the present financial and political climate, it is essential that all sectors, organisations and stakeholders actively explore opportunities for greater collaboration and better coordination. Sharing of finite resources (both financial and in-kind) on projects aimed to deliver mutual benefits is a logical option.

### **Section 6.3.3 - Future-focussed biosecurity research and innovation**

In proposing a fresh approach to biosecurity R&I, the Review Panel has indicated their preferred option, to establish a new national biosecurity R&I entity – while acknowledging the significant difficulties in addressing the present fragmented (compartmentalised) biosecurity R&I arena. However amongst many stakeholders, there appears to be little appetite for a new stand-alone entity for cross-sectoral biosecurity R&I.

The alternative option would be to manage cross-sectoral biosecurity R&I within an existing RDC, such as RIRDC. In preparing this submission, a range of key stakeholders were consulted, including:

- Senior personnel, Department of Agriculture and Water Resources.
- Senior representatives of two state jurisdictions.
- CEOs of several RDCs, and the Council of RDCs.
- Animal Health Australia and Plant Health Australia.
- Australian Centre for International Agricultural Research (ACIAR).
- Independent consultants with a sound understanding of Australia's present biosecurity arrangements.

During these discussions, no viable alternative for the coordination of cross-sectoral biosecurity R&I emerged. There appeared to be a broad consensus, that RIRDC's potential coordination role should be restricted to those cross-sectoral biosecurity R&I projects where disjointed, segregated activity by individual RDCs would be disadvantageous – and a cooperative, collaborative approach clearly preferable.

## Option 2

The consultation process identified several advantages and disadvantages of Option 2:

### *Advantages*

- Utilises existing systems and organisations; establishment of a new entity would be unnecessary.
- Under its enabling legislation (*Primary Industries Research and Development Act 1989*), RIRDC has a broad mandate to coordinate biosecurity R&I, especially in the cross-sectoral area.
- There appears to be broad general support for RIRDC to take a lead role ('honest broker') in proactively coordinating cross-sectoral biosecurity R&I.
- RIRDC has experience in attracting funds and managing several significant cross-sectoral biosecurity R&I projects, funded under the *Research and Development for Profit* program (DAWR).
- RIRDC would have the ability to initiate a gradual, incremental approach, focusing on a limited number of areas/topics that are of recognised cross-sectoral interest and relevance, for an initial three-five year trial period. This is similar to the NZ approach, and would demonstrate the feasibility (and hopefully benefits) of a collaborative strategy.

### *Disadvantages/weaknesses*

- Significant additional resourcing would be required by RIRDC.
- RIRDC currently lacks expertise in large-scale coordination of biosecurity R&I, involving major industries.
- It is essential that this program be adequately resourced, for it to have a reasonable likelihood of success. The recruitment of a suitably qualified, experienced Biosecurity Manager is of critical importance. It will be equally important to have a specialist communications person who has

- proven experience in stakeholder engagement and a good understanding of government-industry relationships (Relationship Manager).
- There is no 'new' money for biosecurity R&D; most funding would have to be provided from existing sources.
  - Possible reluctance of some other RDCs to co-invest.
  - There is not strong unanimous support for RIRDC to take a proactive lead role in cross-sectoral biosecurity R&I.
  - There is a need to make provision for environmental issues to be covered, by having Department of Environment representation and possibly other appropriate organisations. This should not be at the expense of environment-related issues presently being addressed by existing bodies, e.g. Animal Health Committee handling wildlife health.

### **Necessary conditions for RIRDC to be successful in undertaking a coordination role for cross-sectoral biosecurity R&I**

The IGAB Review has indicated that RIRDC might be an appropriate organisation to coordinate, facilitate and lead cross-sectoral biosecurity R&I. However, while the Corporation is prepared to consider this suggestion, any increased involvement and proactive coordination/leadership role in biosecurity cross-sectoral R&I must be predicated on several clear conditions:

1. There must be formal, unequivocal support from the Department of Agriculture and Water Resources (DAWR) and the National Biosecurity Committee (NBC).
2. There must be broad, clear endorsement of the draft implementation strategy amongst key stakeholders – DAWR, NBC, Council of RDCs, AGSOC R&D Committee, PHA and AHA. It would be helpful to also have support from CSIRO, NFF and Innovation and Science Australia.
3. Willingness of at least five RDCs to actively participate for an initial three-five years, and to commit appropriate funding for this period; a total annual budget of approximately \$6 million would be a realistic figure. It is envisaged that at least 75% of this budget would be allocated to on-the-ground research projects. The \$6 million figure represents approximately 1% of the present total estimated R&D biosecurity spend by RDCs.
4. To the extent possible under current statutory funding arrangements, DAWR should encourage RDCs to allocate more resources to cross-sectoral biosecurity R&I.
5. Agreement on the initial cross-sectoral priority R&I areas, for example:
  - Surveillance and early detection, e.g. state-of-art field test kits, focus on 'hitch-hiker' pests in/on imports;
  - Diagnostics, e.g. 'next-generation' DNA sequencing, other cutting-edge molecular technologies;
  - Data management and interpretation, intelligence capture, 'foresighting', data mining and decision-making tools; and
  - Communication and general awareness of national biosecurity issues. (Although the 'extension' part of RD&E is of on-going importance, it would not be possible to attribute quantifiable financial benefits – *returns on investment* - to particular contributors).

These proposed topics/areas are consistent with the national biosecurity R&I priorities presently being considered by DAWR and NBC. They are also aligned with the priorities set out in the Commonwealth Government's 2015 *Agricultural Competitiveness White Paper*, and the cross-sectoral issues listed in the current National Plant and Animal Biosecurity Strategies.

These suggested broad areas for cross-sectoral R&I encompass a wide range of technologies, most of which are developing at an extremely rapid pace. If this proposal gathers momentum, each contributing partner organisation will have particular views on specific R&I topics that will have potential benefits for their sector.

6. Clear agreed definition of business relationships by all participating bodies – roles, responsibilities, commitments, accountabilities, reporting arrangements and on-going communications.
7. In the context of cross-sectoral biosecurity R&I and the priorities of RDCs, there must be greater emphasis on broad potential trade and production benefits, and less focus on compliance-related issues.
8. These arrangements to be reviewed after three-five years.

## Implementation plan

An increased involvement and proactive coordination/leadership role in cross-sectoral biosecurity R&I would be consistent with several cornerstones of the current RIRDC *Research and Development Plan 2016-2021*:

- *Analyse priority issues and technologies that impact on the **value and resilience** of Australian rural industries.*
- *Facilitate the development and delivery of **national cross-sectoral initiatives** that address priority issues.*
- *Work with industries and other stakeholders to **prioritise and efficiently administer research.***
- *Develop customised tools, systems and partnerships to support **efficient cross-sectoral research investment.***

Any investments by RIRDC, governments, other RDCs and other investors should be consistent with the RIRDC Investment Framework.

If this proposal were to be agreed and adopted by potential participants (investors), it is recommended that the following general implementation plan be adopted for the **National Cross-sectoral Biosecurity Partnership (NCBP)**:

1. RIRDC Board endorses the concept and broad principles of this proposal and the conditions required for RIRDC to take a lead role in coordinating cross-sectoral biosecurity R&I. Any necessary changes to the current *RIRDC R&D Plan* should be considered, including establishment of a new program area.
2. RIRDC Board endorses a budget allocation of \$500,000pa.
3. Senior DAWR personnel are asked to endorse the conditions of RIRDC's coordination/leadership role, and their support for an out-of-session New Policy Proposal (NPP) under the *Research and Development for Profit* program.

4. A formal proposal is prepared and submitted to the NBC, seeking their agreement. Ongoing contributions, financial and 'in-kind', from state/territory governments would be an important expectation.
5. Enlist the assistance of two-three credible 'champions' of collaborative research in the biosecurity space, to informally approach each of the potential RDC participants. RIRDC would meet any out-of-pocket expenses, and pay a modest honorarium, if necessary.
6. The proposal is submitted to PHA and AHA, for their consideration and endorsement.
7. The cooperation and active participation of AHA and PHA will be essential. Both organisations should be requested to assist in making the initial approaches to RDCs, possibly by accompanying the 'champions' to in-person meetings, as appropriate.
8. Recruitment of a Biosecurity Manager and Relationship Manager (stakeholder engagement specialist) commences (three-five year contracts). It is essential that these appointees have a good understanding of the biosecurity arena, together with excellent communications expertise and experience.
9. The proposal is submitted to the Council of RDCs, for their consideration and response.
10. Biosecurity Manager and stakeholder engagement specialist appointed.
11. A series of workshops and stakeholder consultations organised, to get feedback, establish sound communication links and, if necessary, consider any modifications to the business model.
12. This implementation plan is finalised, and endorsed by the RIRDC Board.
13. Potential RDC investors are canvassed informally, to ascertain their views regarding a limited number of specific research topics. A series of face-to-face meetings are held with CEOs and key personnel of potential co-investors and partners (RDCs, universities, private industry).
14. A simple draft collaboration agreement is prepared and distributed.
15. An investor workshop is convened, to finalise research topics, confirm arrangements for stakeholder engagement, and address any concerns among investing bodies.
16. A Steering Committee (similar to CCRSPI model) is established. The chair should be appointed by agreement amongst the partners, contracted to and supported by RIRDC. The Steering Committee would be responsible for:
  - Setting strategic direction for the operations of the Partnership;
  - Overseeing the allocation of committed funding;
  - Guiding planning and coordination of Partnership activities;
  - Reviewing the performance of the Partnership; and
  - Promoting and representing the program to its partners and external stakeholders.
17. Consider avenues for potential international collaboration, with input from ACIAR and Plant and Food NZ, and possibly the International Development Research Centre (IDRC, Canada). Explore other potential linkages, e.g. Australia's association with the European Bioinformatics Institute, Cambridge (UK).
18. Consider establishing linkages with appropriate agencies and organisations responsible for public health and food safety.

19. Initiate three-five year review.

## **Stakeholder engagement, relationship/partnership management**

Initially, the proposal for a Cross-sectoral R&I Partnership would be informally canvassed by the RIRDC CEO and the two-three recognised 'champions' of collaborative biosecurity research, amongst each of the potential investors. It would be advantageous if the 'champions' could be accompanied by PHA and AHA representatives.

Effective stakeholder engagement will be of pivotal importance in this program, and crucial to its success.

It is anticipated that stakeholder engagement would be the major responsibility of both the Biosecurity Manager and the Relationship Manager, with support from the Board and all the RIRDC team. A simple, formal collaboration agreement would set out the terms and conditions of participation, and provide the basis of respective funding commitments. While there should be a flexible approach to investment, those voluntary investments must be firm commitments for the initial trial period.

In the management of the nominated cross-sectoral R&I projects, other RDCs must be prepared to relinquish a 'leadership' role – but to formally engage under clear, agreed accountability and communication/reporting arrangements.

The management of business relationships should be based on an incremental approach, with the potential to grow and evolve over time, as existing and new stakeholders develop an understanding of, and confidence in, the RIRDC-based governance framework.

Wherever possible, all existing communications channels will be used:

- Websites, e-newsletters and publications of all participating RDCs.
- Articles in appropriate RIRDC publications.
- Monthly e-newsletter to all stakeholders.
- Establish a dedicated page(s) on the RIRDC website.
- Facebook, Twitter account, etc.

Other imaginative uses should be made of social media in promoting cross-sectoral biosecurity issues and the R&I projects.

As set out in the proposed implementation plan, the identification of key stakeholders, particularly potential financial contributors, will be of pivotal importance. The analysis of linkages and relationships between key stakeholders, together with identified gaps and weaknesses, would be an early task for the Relationship Manager.

Both PHA and AHA should be encouraged to play direct, active roles in driving and promoting the collaborative R&I model. This would be consistent with their oversight responsibilities for the National Plant and Animal Biosecurity Strategies.

Likewise, wherever appropriate, linkages with both Plant Health Committee and Animal Health Committee should be established.



## Resourcing strategy and indicative costings

The resourcing strategy will aim to:

- Maximise the number of investing agencies, organisations and other bodies (noting that investments might be financial, non-financial, or a combination).
- Maximise the number of investors, regardless of the size of their contributions.
- Focus initially on a limited number of cross-sectoral R&I topics, to demonstrate the benefits of a collaborative approach, and build credibility and trust.
- Ensure that each of the initial projects is subject to a rigorous selection process.
- Encourage a greater proportion of existing investments in biosecurity R&I to be diverted to the agreed cross-sectoral R&I activities.
- Attract a substantial grant from the *Research and Development for Profit* program (DAWR).
- Commit a significant annual allocation from RIRDC's existing resources, to demonstrate 'good faith' in the program.
- Minimise administrative overheads.
- Make maximum use of existing processes, structures and relationships.
- Maximise the use of existing tools, e.g. *International Biosecurity Intelligence System (IBIS)*, *Atlas of Living Australia – NCRIS*.
- Strengthen the linkages between government and industry biosecurity R&I priorities and processes.

### Indicative annual budget

Biosecurity Manager (three-five year contract) – inc. on-costs	\$210,000
Stakeholder engagement specialist	\$180,000
Stakeholder engagement (annual workshops, in-person meetings)	\$400,000
Communications	\$300,000
Administration	\$80,000
R&I projects (10 projects @ \$510,000 ea)	\$5,100,000
Biosecurity 'champions' (honoraria and out-of-pocket expenses - Year 1 only)	\$20,000
Total	\$6,290,000

In the context of a resourcing strategy, it should be noted that the *Draft 2016 National Research Infrastructure Roadmap* (National Innovation and Science Agenda, Department of Education and Training) provides a guide for future national research infrastructure investment decisions. Nine specific 'focus areas' are identified, including:

- Biosecurity.
- Digital data and e-research platforms.
- Environmental systems.

Each of direct relevance to cross-sectoral biosecurity RD&E. The *Roadmap* stresses that:

- A coordinated approach of our biosecurity capability linking government, industry, researchers and the general community will best take advantage of opportunities and better manage risks.
- Strong ongoing research is critical as the potential threats, and the mechanisms required to manage them, are diverse and constantly changing. There is a need to encompass human, animal, plant and aquaculture areas.

The *Roadmap* also identifies four priority areas for national biosecurity research infrastructure, where the emphasis is again on establishing networks and encouraging stronger collaboration:

Elements	NRI Response
National network for containment and prevention of endemic and exotic human and animal diseases	Enhance capability in animal biosecurity to enable world's best practice, including AAHL.
National network for the containment and prevention of endemic and exotic aquaculture diseases	Enhance capability in aquaculture research into exotic pathogens.
National network for the containment and prevention of endemic and exotic plant diseases	Explore integration of plant biosecurity infrastructure.
Network the national, state and territory biosecurity testing facilities	Enhance the capability and network of existing biosecurity testing facilities, including virtual laboratories and research communities.

## Funding arrangements

It is proposed that some of the key provisions of funding arrangements be as follows:

- An initial significant three-five year commitment by RIRDC (\$500,000 pa).
- Out-of-session application to the *Research and Development for Profit* program (DAWR) – new policy proposal.
- Prepare operating principles for a functional vehicle for co-investment (accountability, flexibility etc.) that can provide the basis for successful cross-sectoral investment.
- Draft investment (collaboration) agreement.
- DAWR to provide clear advice to RDCs regarding the need for greater investment in cross-sectoral biosecurity R&I.
- Explore the potential for investment by the private sector, e.g. Syngenta Foundation, Monsanto, Bayer.
- Explore potential for some modest investment and engagement by environmental groups, e.g. Bushwalking Australia, National Parks Association, Wildlife Conservation Society, Australian Marine Conservation Society, WWF.
- Consider potential linkages with the *Draft 2016 National Research Infrastructure Roadmap* (see above), with a view to possible complementary funding that would strengthen cross-sectoral biosecurity R&I activity.

- Consider potential linkages with relevant public health and food safety agencies/organisations.