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Independent Review Panel
Intergovernmental Agreement on Biosecurity
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Re: Intergovernmental Agreement on Biosecurity Review

The Nature Conservation Society of South Australia (NCSSA) welcomes the opportunity to provide a submission to the Independent Review of the Intergovernmental Agreement on Biosecurity and the extension of time to enable us to do so. As South Australia's primary nature conservation advocacy organisation, the NCSSA has an active interest in the protection and conservation of South Australia's natural resources with particular attention being paid to nationally and state listed threatened plants, animals and ecological communities, management of protected areas and remnant native vegetation.

Please refer to the following pages for our responses to questions put forward in the Discussion Paper to be considered by the Independent Review Panel.

Yours sincerely,

Nicki de Preu
Conservation Ecologist
Nature Conservation Society of South Australia

NCSSA Summary of Key Points

Since 1962, NCSSA has been a strong advocate for better laws and policies to protect natural ecosystems in South Australia from the impacts of pest plants and feral animals. Our submission focuses on matters that may affect the environmental outcomes achievable under the Intergovernmental Agreement on Biosecurity (IGAB) to which South Australia is a signatory.

Key points raised in our submission include the following:

- We consider the IGAB to be a fundamental element of Australia's biosecurity system, facilitating improvements in coordination of biosecurity policy and practice across jurisdictions.
- Strongly recommend the IGAB include an additional priority that addresses environmental biosecurity.
- Strongly recommend that effort be directed toward implementing the recommendations of the 2015 Senate inquiry into environmental biosecurity.
- Recommend a comprehensive analysis of national biosecurity risks and priorities be undertaken as a high priority using a transparent and rigorous science-based approach.
- Recommend the National Biosecurity Committee have representatives from environment departments across all jurisdictions not just NSW and Tasmania.
- Strongly recommend proper consideration is given to the potential impacts of any proposed control efforts for either new incursions or established species as part of the current review.
- Strongly recommend that further research on the impact of climate change on the distribution and abundance of pest plants and animals is an important priority for the next two decades.
- Support the Invasive Species Council proposal that a simple measure of success for Australia's national biosecurity system would be to see the trend, and the degree of impact of invasive species on Australia's biodiversity, improve in successive national state of the environment reports.

We provide the following responses to the questions in the Discussion Paper: Is Australia's national biosecurity system and the underpinning Intergovernmental Agreement on Biosecurity fit for the future?

Question 1

Is the IGAB a suitable mechanism to underpin Australia's national biosecurity system in the future (10 or 20 years from now)? Are the consolidated priority areas still appropriate?

NCSSA consider the IGAB to be a suitable mechanism to underpin Australia's national biosecurity system both currently and in the next two decades and the consolidated priority areas to be mostly appropriate. We strongly recommend that an additional biosecurity priority is added to the list of consolidated priority areas in the IGAB that addresses environmental biosecurity. The national biosecurity system has historically had a primary focus on the threats and risks to the agricultural sector with only limited regard to environmental biosecurity. This is highlighted in the much higher degree of preparedness in agricultural biosecurity than in environmental biosecurity as outlined in Appendix 1 of the Invasive Species Council submission.

We acknowledge the challenges related to national decision making and investment given limited financial resources and large number of priorities that need to be addressed in order to achieve effective, long term biosecurity arrangements across Australia. We strongly support the need for ongoing review of the IGAB and continuous improvement of the national biosecurity system as new research findings and data becomes available.

Question 2

What are your views on the construct, effectiveness, and transparency of the IGAB? Please provide examples.

NCSSA is aware of the IGAB but had limited involvement with its oversight of national biosecurity issues prior to this review so are unable to comment on the effectiveness or transparency of its operations at this stage.

Question 3

What practical improvements to the IGAB and/or its structure would provide for an increased, but accountable, role for industry and the broader community?

We recommend that the National Biosecurity Committee (NBC) should have representatives from environment departments across all jurisdictions. Currently only NSW and Tasmania have such representation on the NBC. We also recommend that there is a need for better linkages and understanding of the relationship between national biosecurity priorities and those identified at jurisdiction level including Regional NRM Plans.

Question 4

Is the goal, and are the objectives, of Australia's national biosecurity system still appropriate to address current and future biosecurity challenges?

We consider the goal and objectives of the national biosecurity system remain appropriate however strongly recommend that an explicit goal *of reducing the impact of invasive species on the natural environment and biodiversity* be included, to give the agreement clearer direction and purpose around environmental biosecurity.

Question 5

In order of importance, what do you see as the most significant current and future biosecurity risks and priorities for Australia and why? Are Australia's biosecurity objectives appropriately tailored to meet these risk and priorities?

We acknowledge the challenges and complexities involved in continuing to identify, manage and assess biosecurity risks and priorities in a constantly changing global environment. We strongly support the statement on Page 13 of the Discussion paper that "climate change has made many environments (terrestrial and aquatic) more susceptible to pest and disease incursions, and has increased the range of a widening array of potential pest and disease threats". We believe that ongoing risk assessments of both existing/established pests and diseases and new/emerging ones will be critical to an effective and cost efficient biosecurity strategy in the face of climate change.

We do not have the expertise or resources to provide a comprehensive analysis of national risks and priorities, but are aware that no comprehensive analysis of environmental biosecurity risks and priorities currently exists. We strongly recommend that such an analysis should be undertaken as a matter of high priority to enable the tailoring of Australia's biosecurity objectives and responses. We also recommend that decision-making about which are the most important risks and priorities in biosecurity must be based on a transparent and rigorous science-based risk analysis including (where environmental biosecurity is concerned) an application of the precautionary principle.

In terms of current biosecurity risks and priorities, from a biodiversity conservation perspective, there are currently 21 Key Threatening Processes (KTPs) listed under the Federal *Environment Protection and Biodiversity Conservation* (EPBC) *Act 1999* that include a number of pest animal species, '*Novel biota and their impact on biodiversity*' and '*Loss and degradation of native plant and animal habitat by invasion of escaped garden plants, including aquatic plants*.' Of the 21 KTPs listed under the EPBC Act, twelve pose a significant risk in terms of the impact caused by established pests or diseases on native species and/or ecological communities including feral cats, foxes, unmanaged goats and dieback caused by the root-rot fungus (*Phytophthora cinnamomi*). Unmanaged goats pose a particular issue for biosecurity in the event of an outbreak of foot and mouth disease. They are widespread in some parts of Australia and, despite ongoing significant investment in control effort, there are many landholders that see them as a marketable resource rather than a pest animal that is required to be controlled under existing legislation. Further education and emphasis is required to inform landholders of the risk that unmanaged goats pose to agriculture in the event of an outbreak of foot and mouth. Feral cats are probably one of Australia's worst established pest animals. They kill vast numbers native fauna, breed rapidly and are able to adapt to a wide range of climates, having invaded every part of Australia. The current activities being promoted by the Threatened Species Commissioner and funded through the Commonwealth Government are high-profile, and mostly appropriate. One criticism of this program is that the public awareness material should focus on the damage caused to native fauna rather than demonising all cats, as this is likely to put cat lovers offside. The root-rot fungus (*Phytophthera cinnamomi*) is a significant current threat to native vegetation and conservation of biodiversity as well as agricultural enterprises that rely on native pastures for stock production. Although some work has been done on methods to control the spread of *Phytophthera* however, because this pathogen has a greater potential to adversely impact natural systems, it has not been considered a high priority.

In terms of future risks and priorities, Biosecurity SA have identified a list of alert pest plant and animal species that are of serious concern to both the environment and agricultural production including Alligator Weed (*Alternanthera philoxeroides*), Mesquite (*Prosopis* spp), Parkinsonia (*Parkinsonia aculeata*) and the Cane Toad (*Bufo marinus*). These invasive plants and animals are either not known to be in South Australia or if present, occur in low numbers in a restricted area, and are still capable of being eradicated. We support the list of alert species identified by Biosecurity SA and the future threat they could pose to the State's primary industries, natural environments or human health if they were to become established. We also consider Myrtle rust to be a future priority given the significant potential to cause major devastation to Australian ecosystems because of the large proportion of Australian native plants in the Family Myrtaceae. We believe Biosecurity Australia has effectively developed community awareness and rapid response systems to deal with an outbreak. However, because this pathogen has the potential for impact on natural systems more than economic (with a few exceptions such as Eucalypt plantations etc), it has perhaps not been considered as a high priority or given as high a media profile as it deserves.

Question 6

Are the components and functions of Australia's national biosecurity system consistently understood by all stakeholders? If not, what could be done to improve this?

From our perspective there appears to be some disconnect between the national biosecurity system and how this applies across jurisdictions. Although there is a strong emphasis in State and regional NRM planning on priority pests and biosecurity risks, the focus is largely on regional and in some cases cross-boundary issues without consideration of the broader national biosecurity situation. We consider this is an area that could be improved in terms of increasing awareness of the national biosecurity threats and how individuals/groups/organisations can contribute to the national program through local efforts. We strongly recommend that effort be directed toward implementing the recommendations of the 2015 Senate inquiry into environmental biosecurity.

Question 7

What benefits (or impediments) are there in realising a more integrated national approach to biosecurity, agreed to by key partners in Australia's national biosecurity system?

Some of the benefits might include better co-ordination of control efforts for existing/established pests and diseases and increased awareness of new and emerging threats to biosecurity. A potential impediment to a more integrated national approach to biosecurity is the increasing disconnect between the large proportion of Australia's population that live in major cities and levels of awareness/understanding/empathy about environmental issues including biosecurity. We believe there is an urgent need to engage the broader population about our reliance on the ecosystem services provided by the natural environment and the ongoing decline in biodiversity due to threats posed by established pests and diseases and risks from new and emerging ones.

Question 8

What form would this best take (for example, a national statement of intent or national strategy)? What are the key elements that must be included? What specific roles do you see industry and the broader community playing in such an initiative?

We support the need for a national strategy that identifies guiding principles for biosecurity and links in with existing biosecurity policies/plans for all jurisdictions but recommend that changes to the IGAB should precede any development of a national strategy. When developed, it is critical for industry and the broader community to be involved in development of such a strategy so that they have some sense of ownership of the strategy and responsibility for delivery of its goals and objectives. It might be useful for such a strategy to consider some of the concepts and language being promoted by Common Cause that appeal to people's intrinsic values.

Question 9

Are the roles and responsibilities of stakeholders in Australia's national biosecurity system clearly and consistently understood? How might this be improved?

We consider there is some variation in the levels of understanding by stakeholders of their roles and responsibilities in Australia's biosecurity system and believe this could be improved with increased community engagement through a national engagement and communication framework as provided for in Schedule 6 of the IGBA. In some situations there is a lack of commitment from key stakeholders to follow through with their roles and responsibilities. This is particularly the case where established pest plants and invasive animals are of concern. Despite legislative requirements for landholders to control declared plants and animals there is often a lack of resources (time, funding and/or people) to undertake such control. There are also diminishing resources within government to offer assistance or undertake compliance to ensure that control of declared species is being undertaken.

A key area of concern for NCSSA is the impact of both established and new/emerging species of pest plants and animals and methods used for their control on native vegetation, in particular areas that provide habitat for nationally, state and regionally rare listed species and threatened ecological communities. We feel it important for the Review Panel to recognise that biosecurity risks arise not only from the invasion of new pest plants or animals but also the broader effects of established exotic species. NCSSA strongly recommend that proper consideration is given to the potential impacts of any proposed control efforts for either new incursions or established species as part of the current review. This is of particular concern where non-selective, 'agricultural' pest plant control techniques are employed, such as broad acre spraying of weed infestations in native vegetation. We urge proper consideration of potential impacts of proposed control actions and the use of control methods that are selective for the pest plant and that do not cause off-target damage to native biota.

We also strongly recommend the Review Panel refer to the findings of the 2008 Beale review of Australia's biosecurity system and its recommendations aimed at delivering sound, defensible, timely and accountable decisions.

Question 10

What practical actions do you think governments and industry organisations can undertake to strengthen the involvement of industry and community stakeholders in Australia's national biosecurity system? Would increased involvement in decision making on and implementation of biosecurity activities help the adoption of shared responsibility?

Regional Natural Resource Management (NRM) bodies have a very strong role in ensuring that local communities have a clear understanding of the associated risks of priority pests and diseases that may affect both agricultural production and social and ecological systems. We consider the NRM Boards and staff have a key role to play in ensuring buy-in from local communities and industries and processes to identify regional priorities for investment through engagement, discussion and education.

Question 11

Are the IGAB investment principles still workable? Do they still meet the needs of Australia's national biosecurity system now and in the future?

We consider the IGAB investment principles remain appropriate to address national biosecurity issue for the present time. It is difficult to say if they will continue to be in the future given the constantly changing global biosecurity challenges.

Question 12

Are governments and industry investing appropriately in the right areas? Are there areas where key funders should be redirecting investment? Can investment in biosecurity activities be better targeted? If so, how? Please provide examples.

We strongly support the key areas identified by the Invasive Species Council 2016 National Priorities where refocusing existing funding and targeting additional investment can deliver better outcomes, including large long-term cost savings, stemming biodiversity losses and enhancing agricultural productivity. One of the key concerns that we have is the short-term nature of funding for pest management and changing priorities depending on the Government at the time. There needs to be a long-term vision and goals for national biosecurity that addresses management of existing pests and diseases as well as new and emerging ones. We believe the IGAB has the potential to provide this however strongly recommend that significantly more funding is required to address these issues.

Question 13

How do we ensure investments and investment frameworks align with priorities, while being flexible enough to address changing risks and priorities?

Regular review of priorities/investments in biosecurity programs is required and an evaluation of what these programs have achieved is essential to determine if they are achieving the desired outcomes or if funding or control efforts would be better directed elsewhere. Review process could possibly be conducted every 5 years as per State of the Environment reporting and enable an assessment of whether risks/priorities have changed or remain the same.

Question 14

Are current biosecurity funding arrangements still appropriate to meet the needs of Australia's national biosecurity system, now and in the future? What might an alternative or novel funding model encompass?

NCSSA consider the institutional arrangements for environmental biosecurity to be reasonably effective however ongoing reductions in both staff and budgets across the South Australian Department of Environment, Water & Natural Resources (and also other environmental agencies across Australia) mean that there are fewer resources to undertake surveillance and compliance for identified priorities. One alternative might be to access funding through industry funds where particular biosecurity risks have the potential to impact of future productivity or sustainability.

Question 15

What can be done to ensure an equitable level of investment from all stakeholders across Australia's national biosecurity system, including from risk creators and risk beneficiaries?

Prevention measures as well as targeting both new/emerging and widespread invasive species in a prioritised and cost effective manner remains critical to effective management of biosecurity in both production and natural landscapes. Investment and action in invasive species management should be balanced across this spectrum and across sectors so that new/emerging and widespread invasive species are addressed commensurate with their potential and current impacts.

Question 16

Are market access considerations given appropriate weight in Australia's national biosecurity system? What other considerations also need to be taken into account?

It is our opinion that market access considerations for agricultural commodities are currently given a far greater weighting than environmental biosecurity in the national system. We consider this inappropriate given that the national system is designed to safeguard the environment from pests and diseases that threaten native species and ecosystems as well human health and agriculture. To ensure public assets (such as biodiversity and ecosystem services) are appropriately considered in national significance and national interest tests, methods should be developed to adequately estimate the environmental costs and benefits of established pests, especially with regard to biodiversity loss. The May 2015 Senate Inquiry into Environmental Biosecurity recognised such a need to with regard to national biosecurity responses: '*Recommendation 4 - The committee recommends the Commonwealth Government work with state and territory governments to develop a nationally consistent methodology for incorporating environmental impacts into cost-benefit analyses under the National Environmental Biosecurity Response Agreement*' (http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/biosecurity/Report).

Question 17

Are there ways governments could better partner with industry and/or the broader community to reduce costs (without increasing risk), such as industry certification schemes?

No comment.

Question 18

How can the capacity and capability of surveillance systems (including diagnostic systems) underpinning Australia's national biosecurity system be improved?

Current protocols for surveillance and control of high priority environmental risks in South Australia involve a number of Government and non-government organisations and wide range of community groups. NCSSA support these protocols however strongly recommend that they need more support and improvements of networks with active field botanists and ecologists to enhance surveillance and monitoring capacity and to reduce lag time between detection and management responses. We also

strongly recommend that existing local knowledge and appropriate ecological expertise is further utilised in the detection and identification of new plant incursions as some may superficially appear very similar to indigenous congeners or other related native species. Recent developments with citizen science projects such as the Atlas of Living Australia and Feralscan could assist in building the capacity and capability of surveillance systems.

Question 19

Which specific areas of Australia's national biosecurity system could benefit from research and innovation in the next five, 10 and 20 years and why? Please provide examples.

We strongly support the need for ongoing biosecurity research and innovation and believe these areas have an important role to play in further developing capacity for surveillance and response, data-sharing and analysis. The most effective pest control methods in use today are based on a multitude of past research programs and we strongly support the need for ongoing research to develop new control methods and improve traditional control techniques. We strongly recommend that further research on the impact of climate change on the distribution and abundance of pest plants and animals is an important priority for the next two decades.

Question 20

How can coordination of biosecurity-related research and innovation activities be improved?

The Invasive Animals CRC and Invasive Species Council play an important role in coordination and dissemination of biosecurity research findings and related information. These organisations should continue to be supported to deliver these outcomes.

Question 21

How can innovation (including technology) help build a more cost-effective and sustainable national biosecurity system?

We strongly support the need for innovation and new technologies such as biocontrols to build a more cost-effective and sustainable biosecurity system. Such techniques enable more species specific control programs and eliminate harmful off-target impacts. Biocontrol agents, such as rabbit viruses, can not only eradicate huge numbers of pests for relatively small costs but also self perpetuate and reach pests in areas where access is difficult.

Question 22

What does success of Australia's national biosecurity system look like? How could success be defined, and appropriately measured (that is, qualitatively or quantitatively)? What, if any, measures of success are in use?

From an environmental perspective, success of Australia's national biosecurity system would mean a reduction in the impact of both established and new pests and diseases on biodiversity. There are currently a range of measures in place for assessing the effectiveness of biosecurity programs including Australia's State of the Environment Report and Australia's National Biodiversity Conservation Strategy 2010-2030. The 2011 State of the Environment Report provided an assessment of trends in relation to environmental biosecurity that found invasive species and pathogens are one of the greatest pressures on the nation's biodiversity, ranked as having a very high impact and with a downward trend indicating the issue is increasing in magnitude. We support the Invasive Species Council proposal that a simple measure of success for Australia's national biosecurity system would be to see the trend, and the degree of impact of invasive species on Australia's biodiversity, improve in successive national state of the environment reports.

Question 23

What would be required to ensure data collection and analysis meets the needs of a future national biosecurity system? Who are the key data and expert knowledge holders in the national biosecurity system?

Data needs to be collected and reported in a standardised manner across jurisdictions in order for rigorous analysis and interpretation of results. Further emphasis on public reporting on environmental biosecurity is required and alignment with progress towards formal SMART targets for reducing invasive species' environmental impacts to a minimum. There a wide range and number of key data sources and knowledge holders that could provide data to support the needs of the national biosecurity system including Government agencies, NGO's and private consultant companies. NCSSA has an extensive database relating to our Bushland Condition Monitoring program in South Australia that includes presence of pest plants and animals recorded at/near survey sites.

Question 24

How can existing or new data sets be better used? How might data be collected from a wider range of sources than government?

We recommend the Review Panel refer to the recommendations from the 2015 Senate Inquiry into Environmental Biosecurity and 2008 Beale Review for further discussion of these issues.