

Response to the Production Commission Draft
Inquiry Report

on

Rural Research and Development
Corporations

22 October 2010

Prepared by

Department of Primary Industries, Victoria

on behalf of

the State Government of Victoria

Response to Productivity Commission Draft Inquiry Report on Rural Research and Development Corporations

Key messages

The Government of Victoria welcomes the Productivity Commission's draft Inquiry Report and notes its:

Support for:

- Establishing public funding principles
- Support for the rural Research and Development Corporation (RDC) model and the inclusion of a new mechanism – Rural Research Australia (RRA) – for dealing with non-industry specific rural RD&E.
- Encouraging greater investment by producers on benefits to industry.
- Independent performance monitoring and evaluations.
- Need to address data deficiencies 'across the board'.

Reservations of:

- That industry would 'fill the gap' if government funds were withdrawn from industry specific RDCs.
- Notwithstanding support for the establishment of the RRA, there are a number of significant implementation risks.
- Commission's proposed model could lead to significant industry dis-engagement in non-industry specific rural RD&E and the loss of national science capability.
- Inadequacies in data sets do not allow sufficient analysis to identify firm amounts of government funding for either RDCs or the RRA.
- Inadequate attention has been given to the facilitative role that is within the capacity of the National Primary Industries RD&E (NPIRDE) Framework.

Proposed Remedies:

- The agenda for implementation of the new RDC model should include strategies aimed at increasing the level of industry funding.
- Decisions about the quantum of funding, or structural changes to the R&D system must be predicated on a robust evidence base using up-to-date data. Existing total government funding should be maintained in real terms until a much stronger information base exists.
- The two preferred options identified by the Commission for funding non-industry specific RD&E (transfer funding from RDCs to the RRA, or require each RDC to spend a predetermined part of its public funding) should be explored more fully.

Response to Productivity Commission Draft Inquiry Report on Rural Research and Development Corporations

This should include prospective use of both options to identify the mechanism that delivers the best outcome and promotes engagement, collaboration and co-investment with industry.

- Establishment of the RRA should consider:
 - A progressive approach to funding with basic seed funding to support its establishment and enable RDC collaboration, plus transfer of relevant existing government funded programs.
 - The breadth of coverage for the RRA should be broad and include climate change, soil/water/vegetation/landscape management, biosecurity, energy and bioenergy, animal welfare and food safety.
 - Core national RD&E resource capabilities such as gene banks and national pest and disease collections should be included in the RRA coverage.
 - Increased emphasis by RDCs on knowledge management and transfer is a necessity and should also apply to the RRA.
 - Interaction and engagement with industry sectors and their respective RDCs will be critical in achieving relevance and implementation of outputs.
- The NPIRDE Framework should be utilised to assist in delivering the objectives of the review and mitigate against some of the potential risks that proposed system changes may present.
- The Department of Agriculture, Fisheries and Forestry (DAFF) should be established as the authorising agent and coordinator for the Australian Government of the mechanism for providing high level oversight. This arrangement would entail an inclusive participation of all jurisdictions and industry.

Introduction

This submission is in response to the Productivity Commission's Draft Report of its inquiry into rural Research and Development Corporation (RDC) arrangements in Australia and has been prepared by the Department of Primary Industries, Victoria on behalf of the State Government of Victoria.

The Productivity Commission's draft report is a welcome contribution to the national discussion on research, development and extension (RD&E). The findings in the draft report are comprehensive and indicate thoughtful analysis of the issues and many submissions to the inquiry.

1 Support

Victoria notes the Commission's strong support for the RDC model; its recognition of the significant benefits that derive from rural RD&E; and the high rates of return. Victoria agrees that:

- the amount of public investment in rural RD&E should be guided by strategy, policy principles (for example, market failure), systems (value for money, portfolio balance) and processes (accountability, transparency);
- greater investment by producers should be encouraged, including through streamlining the levy mechanism (to reduce transaction costs), and encouraging RDCs to fund the entire spectrum of RD&E;
- extension and ultimately practice change are critical to achieving benefits from research and RDCs should include extension and the adoption of technology in considerations on R&D;
- The need for RDCs to undertake on-going independent performance reviews, monitoring and evaluations; and
- a new mechanism is required for non-industry specific rural RD&E.

The Commission has proposed a reconfiguring of the RDC model, and Victoria supports the elements of:

- the overarching principle that the primary aim of government funding is to enhance the productivity, competitiveness and social and environmental performance of the rural sector and the welfare of the wider community by inducing socially valuable R&D;
- the establishment of public funding principles;
- the establishment of a new RDC – Rural Research Australia (RRA) – focussed on non-industry specific rural RD&E;
- the focus of industry RDCs predominantly on industry benefits; and
- redressing deficiencies in the availability of timely and robust data on funding and performance across the totality of the rural R&D Framework.

2 Reservations and considerations

While supporting elements of the draft report, Victoria has fundamental reservations regarding important uncertainties, assumptions, omissions and implementation risks associated with aspects of the revised RDC model.

1. The recommendations on funding of industry-based RDCs are largely predicated on the notion that a withdrawal of government funding would result in a greater contribution by industry, especially where industry is a direct beneficiary. This is an assumption that the Victorian Government challenges.
2. Investment in R&D is one of the key drivers of productivity growth. Any reduction in total RD&E investment will have a consequential negative effect on productivity growth with economy-wide implications.
3. The proposed reduction in total government funding, the rationale for apportioning and the indicative funding targets for the RRA and RDCs are premature and need further consideration. The principal aim at the outset should be to identify how a better balance of socially valuable outcomes from the investment of public funding is to be achieved.
4. Establishment of the RRA is supported, however, there are significant implementation risks that could result in unintended negative consequences for industry and the community.
5. While it is agreed that RDCs should predominantly focus on industry benefit outcomes, it is important to note that many industry benefit projects also deliver valuable social benefits. As a consequence, it is crucial that industries (RDCs) are strongly connected to the strategic planning, conduct and delivery of non-industry specific RD&E under the RRA. This connectedness is critical to facilitate collaboration relevance and early adoption.
6. The National Primary Industries RD&E (NPIRDE) Framework has the capacity to facilitate much of the proposed changes, and its role has not been accorded adequate attention.

Victoria submits the following more detailed analysis to support the goal of increasing the level of socially valuable research whilst achieving a productive competitive and sustainable agriculture sector.

2.1 Increased investment by levy payers for industry benefit

The Commission's report notes that high rates of return from industry focussed R&D provide a significant incentive for producers (levy payers) to invest in R&D. Consequently, the Commission expects a strong likelihood for industry (producers) to increase their investment as government funding is withdrawn.

Response to Productivity Commission Draft Inquiry Report on Rural and Research Development Corporations

Victoria agrees with the principle that industry should contribute more to RD&E – that is manifestly a desirable objective. However, we express a strong note of caution about this presumption of industry investment replacing government funds.

The Commission's assumption that, in the absence of (a significant part of) the government matching support, the RDCs would have set higher levy rates and funded the projects in any case, is highly questionable. By logical extension, it assumes that government funding through matching support does not generate additional R&D. Further, it assumes that the introduction of the levy arrangement effectively solves the incentive problems for producers as a group such that they will set a levy rate that maximises (expected) net benefits to producers as a group.

Work by Alston, Freebairn and James (2003, 2004) which examined producer interests and the national interest in relation to levy funded research, concluded that the appropriate matching grant for the producer levy depends on relative elasticities of supply and demand, and the trade status of the commodity. This is the case even when the benefits are confined to producers and consumers of the affected commodity.

Victoria has serious doubts that producers will in all cases increase levy funding as government funding declines. This is because there is a diversity of interests among producers within an industry which may influence their incentives to act collectively. Relevant aspects of this diversity among agricultural producers include: the size of the firm, its technology, and the age of the operator. These aspects will influence whether particular producers can expect to adopt the resulting technological innovations, and thereby benefit from levy funded research. How much they will benefit and when are also important considerations.

In addition, with concerns about free riders and spillover effects, the assumption that industry will fill the gap left by withdrawal of government funding, is by any measure a 'leap of faith'. Past history with a number of levy votes supports this view. That said, Victoria would argue that strategies aimed at increasing the level of industry funding should be high on the agenda in implementing the new RDC model.

A further point relates to implications for the providers of RD&E services (often the Australian and state governments) who retain substantial capital assets and workforces dependant (in part) on this funding. Unlike some sectors, this infrastructure is outside the direct responsibility of the industries (levy payers) it serves and consequently its management and maintenance are not well understood by them. As a result they are unlikely to recognise the full value of the asset and will under invest in it. This is a clear market failure. Should industry levies not fully replace government funding, a valuable public asset will be eroded.

The potential risks and consequences if the Commission's assumptions are ill-founded, and the rural sector does not conform to the precepts of classical economic theory, need further consideration.

2.2 Productivity

The draft report takes a cautionary approach to recent empirical work linking a slowdown in productivity growth in broadacre agricultural industries since the mid-1990s to reduced public sector spending on R&D (p.xxii). The Commission notes (and Victoria agrees) that the reported results of any quantitative work of this nature are heavily influenced by assumptions (p.41). A key issue in this respect is the extent to which productivity growth is attributed to R&D investment relative to other productivity drivers (p.41). Later in the report, it is pointed out that the correlation does not account for the impact of poor climatic conditions (p.69).

It is acknowledged that the above does not fully capture, or indeed do justice to, the Commission's analysis of the correlation between productivity growth and public sector spending – the aim is to capture the essence of the Commission's findings. Victoria understands the current difficulties with comprehensive and robust data on productivity and supports the Commission's recommendation that greater emphasis and attention be directed by governments to the collection of data to support decision making.

Productivity growth remains a key priority. It is a complex issue with many dimensions that need to be taken into account, including climate change. As the Commission acknowledges, investment in R&D is a key driver of productivity. A reduction in investment leading to a decline in productivity has the potential to adversely affect industry and the wider economy. As noted earlier, the assumption that the industry would fill the investment gap is highly questionable.

It is strongly argued that decisions about the quantum of funding, or structural changes to the R&D system must be predicated on a robust evidence base using up-to-date information. To that end, Victoria suggests that the Commission should make a specific recommendation requiring the Australian Bureau of Agricultural Research Economics (ABARE) or equivalent, to publish timely national data on productivity with breakdowns by State, on an on-going basis.

2.3 Quantum of funding and indicative targets

Victoria is opposed to the targets as outlined in the draft report in respect of both the funding of the RRA and the proposed cap on matching contributions made from industry levies. The Commission has sought further input on the appropriate remit and funding, and we surmise that the amounts proposed were arbitrary – a starting point for discussion.

Victoria agrees with the Commission that there is a “paucity of data” available. Our position is that it is too soon to identify firm amounts for either the RRA or RDCs, and that existing funding should be maintained in real terms until a much stronger information base exists.

Furthermore, as outlined in the sections above, some of the underlying assumptions upon which the Commission has based its findings are open to challenge. It is Victoria's view that, given the absence of reliable data – including current investment quanta, its sources, robust productivity data, and portfolio information – arriving at a quantum of funding for either the RRA or RDCs would represent an unacceptably

high risk. For example, essential RD&E may not be initiated, or abandoned mid-course with impacts that extend beyond the industry sector to the community or environment. The cost of remedial action may be potentially exorbitant in the medium to long-term.

2.4 The start-up of Rural Research Australia

Notwithstanding Victoria's concerns about the quantum of funding, the early establishment of a cross-sectoral entity is considered an imperative. To this end, and pending resolution of the funding (and other issues raised), Victoria suggests that at the commencement of the RRA, it be provided with a terms of reference and responsibility for:

- leading national cross-sectoral strategies and priority setting (as part of the NPIRDE Framework) for coverage areas described at 2.4.2 ;
- collaborating with industry RDCs and involving industry in governance;
- ensuring its relevance and value in delivering socially valuable R&D;

2.4.1 Funding the start-up RRA

Funding of the RRA could be approached progressively with basic seed funding to support its establishment, plus transfer of relevant existing government funded programs. A further amount of seed capital should be provided so that the RRA can engage relevant parties (governments and industries) in co-investments for social benefit.

Further funding should be made available as the breadth of coverage and strategies under the RRA are established. The Commission has noted in its report (p.95), that the appropriate level of public funding should 'emerge' over time, including from an assessment of all the various programs through which governments contribute funding, and an assessment of evidence that the current program portfolio is failing to cater for particular types of socially valuable rural RD&E.

The draft report highlights two preferred options for funding non industry specific rural RD&E (p.137). One involves the transfer of funds from industry RDCs to RRA, with the other option being a requirement for each RDC to spend a predetermined part of its public funding on non-industry specific research.

We would encourage the Commission to more fully explore both of these options, including prospective use of both options, to identify the mechanism that delivers the best outcome and promotes engagement, collaboration and co-investment negotiation with industry RDCs.

2.4.2 RRA coverage

The range of cross sectoral issues challenging agriculture and our rural sector is significant and growing. Victoria proposes the breadth of coverage for the RRA (encompassing RD&E) should include the following:

- **Soil Management**
- **Vegetation Management** (including weed management)

Response to Productivity Commission Draft Inquiry Report on Rural and Research Development Corporations

- **Climate Change and Variability**
- **Water management** (including groundwater and surface water)
- **Energy and Bioenergy** (including generation, use and management)
- **Landscape Change and Management** (encompassing social and biophysical research)
- **Animal and Plant Biosecurity and Bioprotection**
- **Animal Welfare**
- **Food safety and nutrition (pre-competitive)**

Scope should also exist to add new, relevant areas of interest following a detailed analysis of the current and emerging issues. Such analysis is currently a component of the implementation of the NPIRDE Framework.

In addition to the above broad rural research issues, as noted in the Government of Victoria's submission to the Commission's issues paper, there are a number of **core National RD&E Resource Capabilities** that are fundamental across multiple sector and cross-sector issues and underpin the effectiveness of the national research framework (box 1).

Box 1: Examples of core national RD&E resource capabilities

Banks of national plant genetic resources contain germplasm for addressing crop and amenity species adaptation and development, native flora protection and even sources of human health biomolecules. Similarly, national reference collections of insects and plant and animal diseases/pathogens are required for national biosecurity functions including crop and non agricultural applications, sentient animals, production animals and wildlife.

The Commission's report is largely silent on these capabilities. Victoria contends that the RRA should be given responsibility for oversight and resource management of these core capabilities. Further, RRA should undertake a comprehensive analysis, with industry and community input, to determine net benefits and appropriate cost sharing arrangements (with implementation imbedded in the 'public funding principles').

Knowledge management is a key for technology transfer, adoption and practice change. Increased emphasis by RDCs on knowledge management is a necessity and should also apply to the RRA, albeit with a broader responsibility to multiple sectors and the broader community. RRA should immediately take responsibility for the successor to Australian Agriculture and Natural Resources On-line (AANRO).

2.4.3 Industry engagement with RRA

Whilst the focus of the RRA would be non-industry specific, interaction and engagement with industry sectors and their respective RDCs will be critical in achieving relevance and adoption/implementation of outputs. Individual industry sectors may have specific interest in addressing many of the broad issues from the perspective of their industry. As noted by the Commission and others, it can be difficult to segregate industry and social benefit and industry specific strategies do

contain social benefit elements. Consequently, the governance and operational mechanisms of the RRA should consider the means to facilitate industry sector engagement and collaboration.

The achievement of this interaction with industry sectors could take several forms. Consideration should be given to involving industry and broader community representation in the RRA's governance structure, including at the priority setting, program and project management, and evaluation levels. In addition, scope for collaborative investment with RDCs should be enabled, where such co-investment provides additional benefits to both the objectives of the RRA and RDC. For example, whilst the RRA may research animal welfare issues focussed on broad community benefits, individual animal RDCs may undertake industry specific welfare research focussed upon industry benefit. Complementarity and additionality benefits may arise from collaborative co-investment.

3 National Primary Industries Research, Development and Extension (NPIRDE) Framework

3.1 The NPIRDE Framework supports the new RDC model

The draft report and recommendations highlight the need for coordination and strategy driven approaches. There are significant opportunities for the NPIRDE Framework (in current or modified form) to assist in delivering the objectives of the review. Victoria contends that a fuller analysis of this potential would likely be highly beneficial.

Key relevant NPIRDE Framework features include:

- i) The Framework through its alliance of Government and industry investors brings together the parties in a more comprehensive way under an agreement which supports cooperation and collective action. It is an established vehicle that has already achieved substantial productive change and is able to drive further progress.
- ii) The suite of sector and cross-sector strategies in the Framework allows for joint industry and governments strategic planning; and investment in industry benefit and social benefit areas (recognising the extent of that investment will vary between industry and governments).
- iii) The Framework strategies provide the basis for defining sector specific and cross-sector objectives, priorities, capability needs, projects and the measuring and monitoring of performance.
- iv) The collection and analysis of data on current and planned human and physical infrastructure capabilities across the national rural RD&E spectrum (although recognising this data collection and analysis is a work in progress).
- v) For the first time, the Framework provides a strategic oversight of national rural RD&E to guide its development.

The Framework can also mitigate against some of the potential risks that proposed changes may present such as helping to retain industry attention, support and involvement in cross-sector issues.

3.2 Potential risks of the NPIRDE Framework

The draft report noted the benefits of a more coordinated and efficient RD&E system that the Framework is seeking to deliver, but cautioned against the potential to diminish diversity, flexibility and competition. Monitoring and corrective action were recommended should this occur and this approach is supported.

The following comments outline how the Framework is intended to operate and mitigate against these risks.

The Framework brings together a diverse range of industry, government agencies and universities into an environment where interested parties can contribute to strategy development and program delivery. This is an open and inclusive process where the parties can work together to assess and reshape capability to further strategic needs.

While a number of consolidations of capability have occurred, this has not been to the extent that competition has been drastically reduced (noting that some capabilities were already very concentrated, for example for the sugar and cotton industries).

The diversity of interests contributing to each strategy as well as the oversight provided by PISC and CCRDC also provides a significant level of scrutiny of this issue. Further there are no institutional constraints on the entry or development of capability should the need arise.

Rather than inhibiting flexibility, the Framework has enabled enhanced redirection of effort to new priorities and changes to infrastructure. It has provided a context in each national strategy for the change and a more open dialogue with industry. (It is recognised, however, that the level of industry engagement in capability reshaping is improving but not yet at a completely satisfactory level throughout the Framework).

4 Improved co-ordination for the broad rural RD&E framework

The Commission's report identifies the need for a mechanism to better inform and coordinate the totality of government funding for rural R&D&E, and notes (p. 114) *'it does not envisage adding another layer to the existing arrangements for providing high level oversight of the rural R&D framework'*. Victoria supports this approach and recommends that the mechanism utilise the Department of Agriculture, Fisheries and Forestry, as the authorising agent and coordinator for the Australian Government, together with an inclusive participation of all jurisdictions.

In addition, there should be a connection with other stakeholders (primarily RDCs) as has been successfully applied in the Primary Industries Ministerial Council's RD&E sub-committee and its development of the NPIRDE Framework. Evaluation of this mechanism should include consideration of it superseding the operation of the current PIMC (PISC) R&D sub-committee.

A review by the Council of Australian Governments of the ministerial councils' structure is currently underway. Victoria believes the value of the Primary Industries Ministerial Council's oversight of the NPIRD&E Framework should be recognised and considered (at least for the time being) as indispensable.

5 Additional costs associated with funding the new and improved model

Irrespective of how it is finally decided that public funding will be allocated across the system, it needs to be recognised that there are significant additional costs that will be incurred and need to be budgeted.

Victoria strongly supports the Commission's findings on the need for improving the rural R&D data base, performance monitoring and reporting, undertaking system assessments, and evaluations. These cannot be accomplished, however, without the agreement and cooperation of the states and territories, and RDCs, especially in regard to the development of performance frameworks and establishing (and maintaining) nationally consistent data collections.

In addition to the significant establishment costs, the on-going implementation costs will be substantial, and provide for inter alia recurrent administration and compliance costs and stakeholder engagement.

While increased accountability and transparency are important objectives, they are not cost neutral and if absorbed into existing (or future) funding arrangements it will be at the cost of RD&E objectives.

References

Alston, J.M., J.W. Freebairn and J.S. James 2004, 'Levy-funded research choices by producers and society', *The Australian Journal of Agricultural and Resource Economics*, 48:1, pp 33-64.

— 'Distributional Issues in Check-off Funded Programs', *Agribusiness: An International Journal* 19 (3) (Summer): 277-288.

Department of Primary Industries Victoria 2010, *Rural Research and Development Corporations*, Submission to the Productivity Commission Inquiry, http://www.pc.gov.au/_data/assets/pdf_file/0014/102164/sub161.pdf

Productivity Commission 2010, *Rural Research and Development Corporations*, Draft Inquiry Report, Canberra.