



Australian Government

Rural Research and Development Policy Statement

JULY 2012



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Foreword



Australia's rural industries have a strong tradition of being innovative and adapting to new challenges. They have proven highly productive and competitive in international markets. The outlook for the sector is strong, with rising world demand for higher quality and greater variety of food and other primary products.

If rural industries are to continue to grow and to take advantage of new opportunities, they must continue to innovate. Research and development into new technologies, processes and products can lift productivity, increase sustainability of production, and open new markets.

Primary producers are responsible for managing a large proportion of Australia's land and Australian resources. In the face of national and global challenges, such as climate change, drought, food security and the threat of pests and diseases, this is no small responsibility. The rural sector needs to work with government to find innovative solutions to these challenges.

The Australian Government has a long history of co-investing with industry in rural research, development and extension (RD&E). Continued government support recognises that rural industries mostly consist of a large number of small producers who, individually, may not have the capacity to invest in RD&E. Rural research and development corporations (RDCs) provide a way for an industry to invest collectively through levy collections, and matching government funding provides an incentive for industries to do so. Australia's RDC model is unique and held in high regard both in Australia and internationally. The 15 RDCs provide a strong link between government, industry and the research community, and the government intends to continue to support them. Since the Hawke Government started the RDCs in 1989, RDC spending on RD&E has more than tripled and Australian Government funding to them has more than doubled.

I am pleased to release the government's *Rural Research and Development Policy Statement*. Development of the policy statement was guided by consultation with people involved in rural RD&E, and it responds to two recent reviews of the rural RD&E system. The Productivity Commission reviewed the RDC model, examining the rationale for government investment in RDCs. The commission's report made recommendations to improve the overall effectiveness of the RDC model. The Rural Research and Development Council produced an investment plan, which outlines a rationale for balancing Australian Government investment in rural R&D. The investment plan assessed and made recommendations on the wider rural R&D system, rather than focusing on the RDC model.

The policy statement highlights the Australian Government's enduring commitment to world-class rural RD&E and our strong partnership with industry. It outlines how we will improve the effectiveness of the system. It provides clarity for participants on government priorities and expectations. It shows how we will use the opportunities presented by the commission's report and the council's investment plan to ensure our policy settings enable the RDCs and other players in the system to achieve the best possible results for industry and the community.

Senator the Hon. Joe Ludwig
Minister for Agriculture, Fisheries and Forestry
Senator for Queensland

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Summary

Rural research, development and extension (RD&E) has been a significant contributor to making Australia's agriculture, fisheries and forestry industries into what they are today—world-leading, productive and innovative industries.

The Australian rural sector includes a diverse range of industries, which largely comprise small family businesses. The incentive and capacity for individual small businesses to invest in RD&E is low, resulting in potential under-investment in RD&E in the rural sector. The government helps rural industries overcome this by providing rural producers with a means of investing collectively in RD&E to benefit their industry and wider community. This is done through the rural Research and Development Corporations (RDCs)—a partnership between government and industry in priority setting and funding.

The Australian Government encourages public investment in rural RD&E because it brings community benefits from having profitable, sustainable and competitive rural industries. Given that farmers manage around half of Australia's land mass, a strong and efficient rural R&D system is important to help primary producers meet a range of future challenges including climate change, growing world food demand and rising input costs. Through activities such as the RDCs, Cooperative Research Centres, the CSIRO and universities, the Australian Government contributes approximately \$715 million annually to rural RD&E.

The complexity of the rural RD&E system means that coordination and collaboration are important. The primary mechanism for collaboration and coordination in the system is the National Primary Industries Research, Development and Extension Framework (RD&E Framework), a partnership approach between the Australian, state and Northern Territory governments, the RDCs, the CSIRO, the university sector and industry. The Council of Rural RDCs and the Rural Industries RDC (RIRDC) also provide coordination and encourage collaboration between the RDCs.

The rural RD&E system has undergone two recent examinations; the reports of both were released in June 2011.

- The Rural Research and Development Council produced a *National Strategic Rural R&D Investment Plan*, which outlines a rationale for balancing Australian Government investment in rural R&D, provides a picture of the current level of investment, and offers a vision for the rural R&D system.
- The Productivity Commission reviewed the RDC model, and examined the rationale for government investment in RDCs and the overall effectiveness of the RDC model.

The government released the *Preliminary Response to the Productivity Commission Report on the Rural Research and Development Corporations* in June 2011. The preliminary response stated that the government would not adopt the commission's recommendation to reduce the gross value of production cap on matching funding to the RDCs. The government's matching contributions are a key pillar of the model, and there is a risk that reducing the government contributions would undermine the model's strength and would potentially jeopardise the government–industry partnership that underpins the model. A reduction in government funding would lead to an overall reduction in the amount of R&D undertaken, which would have adverse effects on the performance of the rural sector.

The government remains committed to exploring improvements to the RDC model which will optimise outcomes for industry and the wider community. Following further consultation, the government developed this policy statement to set out the steps it will take to address the remaining key recommendations from the commission and the council.

Consistent with the commission and council's acknowledgement of the strengths of the rural RD&E system, and with stakeholder support, the policy statement does not propose large-scale changes to the existing system. The actions outlined in this statement are intended to ensure the effectiveness of the RDC model and the wider rural RD&E system into the future, provide clarity to system participants on government priorities and expectations, and outline the government's role in system oversight to ensure rural R&D results in optimal outcomes and provides a strong return on investment.

Section 2 of this statement includes a set of principles, as recommended by the Productivity Commission, that outline what is expected of RDCs as a condition of receiving government funding, and the responsibilities of government and industry as the other key participants. The section outlines changes designed to increase transparency and accountability in the RDC model. These include:

- introduction of statutory funding agreements (SFAs) for statutory RDCs
- reporting on performance of RDCs, and mechanisms to address underperformance
- measures to increase levels of communication between government, RDCs and levy payers.

Section 3 acknowledges the complexity of the rural RD&E system and outlines steps to strengthen coordination of the national rural RD&E effort. It emphasises that a greater commitment to the National Primary Industries RD&E Framework (NPIRDEF 2012) is needed. In addition, the Australian Research Committee will examine the level of coordination of Australian Government investment in rural RD&E. The section outlines how the government will measure rural RD&E system performance, and clarify the Rural R&D Priorities to provide greater direction on the government's expectations. This section also outlines measures to provide an increased focus on cross-sectoral research. The government believes this could be achieved within existing arrangements, and has therefore decided not to establish a new RDC (Rural Research Australia, as proposed by the Productivity Commission).

Section 4 recognises that rural RD&E is vital to the ongoing productivity and competitiveness of Australia's rural industries, and the health and resilience of Australia's rural and regional communities. It includes a number of initiatives to pursue greater productivity growth, such as:

- mechanisms to encourage investment in rural R&D by the private sector, including overseas investors
- processes and requirements to facilitate timely adoption of research results by end users
- initiatives to help build the capacity of the rural research workforce.

A number of changes could be made to improve the efficiency and effectiveness of the RDC model and to ensure the system delivers value for money on RD&E investment. These changes are outlined in Section 5, and include:

- requirements for RDCs to undertake project evaluations
- improvements to the flexibility and accountability of selection processes for statutory RDC board members
- allowing statutory RDCs to undertake marketing, where the industry requests this
- removal of the requirement for ministerial approval of statutory RDCs' annual operating plans
- removal of product-specific maximum levy rates from legislation.

Section 6 summarises implementation arrangements for the changes in this policy statement, including legislative change and consultation. Specific responses to each of the commission's and council's recommendations are provided in the Appendix.

1 Rural research and development in Australia

Introduction

Rural research, development and extension (RD&E) has contributed significantly to the productivity and innovation of Australia's agriculture, fisheries and forestry industries (rural industries). The new knowledge and technology that is generated through R&D and transferred to industry through extension is central to rural industries remaining internationally competitive, environmentally sustainable and socially responsible. While the rural sector contributes around 3 per cent to the Australian economy, it is one of Australia's major exporters, bringing in over \$30 billion each year for the past decade (ABARES 2011).

The Australian Government is committed to increasing the productivity, sustainability and resilience of Australian rural industries. The world's population is growing rapidly, consumer expectations about the quality of food and fibre are increasing, and climate change is affecting the way food and fibre is produced. It is therefore more important than ever that productivity across all industries improves by producing more with less resources and responding to consumer demand and expectations. Research and development can address imbalances in natural systems that raise the risk of abrupt, damaging and potentially irreversible effects.

ABARES estimates that two-thirds of agricultural production in Australia in recent years can be attributed to productivity gains resulting, with public R&D and extension activities a major contributor to this. Importantly, around half of these productivity gains can be attributed to domestic efforts. To facilitate productivity growth, it is important to improve returns from R&D investment and remove impediments to productivity growth.

The Australian rural RD&E system makes a significant contribution to feeding the world and increasing food security in developing countries. Australian food production contributes to the diet of 60 million people each year. However, through research, development and training, Australia contributes to the diets of around 400 million people each year (D'Occhio 2011). International agricultural research leads to productivity gains in developing countries, and also has significant benefits for Australian agriculture, through spillover effects and building the capacity of the research workforce.

An efficient, effective and transparent investment in rural RD&E may, in the long term, address declining growth rates in agricultural productivity. Historically, productivity in the agriculture, fisheries and forestry sector has grown an average of 2.2 per cent a year since 1974 (PC 2009). Studies have shown that this growth rate has slowed since the mid 1990s for broadacre industries (Sheng et al. 2010). The challenge is for government to create RD&E policy to enable productivity growth to continue. The task is to innovate (and improve the quality and quantity of Australia's rural RD&E investments), adopt (and improve uptake of existing technologies and practices) and reform (and remove the barriers to allow successful farmers to flourish) (Glyde 2010). As a whole, the rural RD&E system needs to maintain a balance of investments between RD&E which will result in incremental productivity growth in the short-term and which may deliver significant step-ups in productivity growth but which may be perceived as high risk.

Rural Research and Development Corporations

Australia has a long history of investing in rural RD&E to improve productivity in rural industries. The first rural R&D levy systems were initiated by producers in particular industries in the early 1900s. In order to stimulate industry funding of rural R&D, and in recognition of its importance in increasing prosperity, the Australian Government began to establish compulsory levies with matching government funding, starting with the wool industry in the 1930s. Similar schemes were introduced for other industries and remained in place until the 1980s.

The rural R&D funding arrangements were reviewed in 1989, due to concerns about industry participation in the planning of rural R&D. As a result, the government decided to form rural R&D Corporations (RDCs) to provide flexibility in the funding of research and increased responsibility; the *Primary Industries and Energy Research and Development Act 1989* (PIERD Act) provided for establishment of RDCs.

Many of these RDCs were complemented by statutory marketing bodies which undertook product marketing and promotion. In the late 1990s and early 2000s a number of industries recognised the potential benefit of having a single body guiding industry R&D and marketing. Following negotiations to resolve appropriate governance arrangements, the government agreed to the creation of a number of merged bodies as industry-owned RDCs. There are currently 15 RDCs—six statutory corporations and nine industry-owned corporations. The RDC model has been operating successfully since 1989 and remains fundamentally sound.

The RDCs primarily derive their funding from statutory or voluntary levies on primary producers or processors, and matching funding from the Australian Government, up to a cap of 0.5 per cent of an industry's gross value of production. Table 1 provides a summary of the differences between statutory RDCs and industry-owned RDCs.

TABLE 1 Comparison of rural research and development corporation types

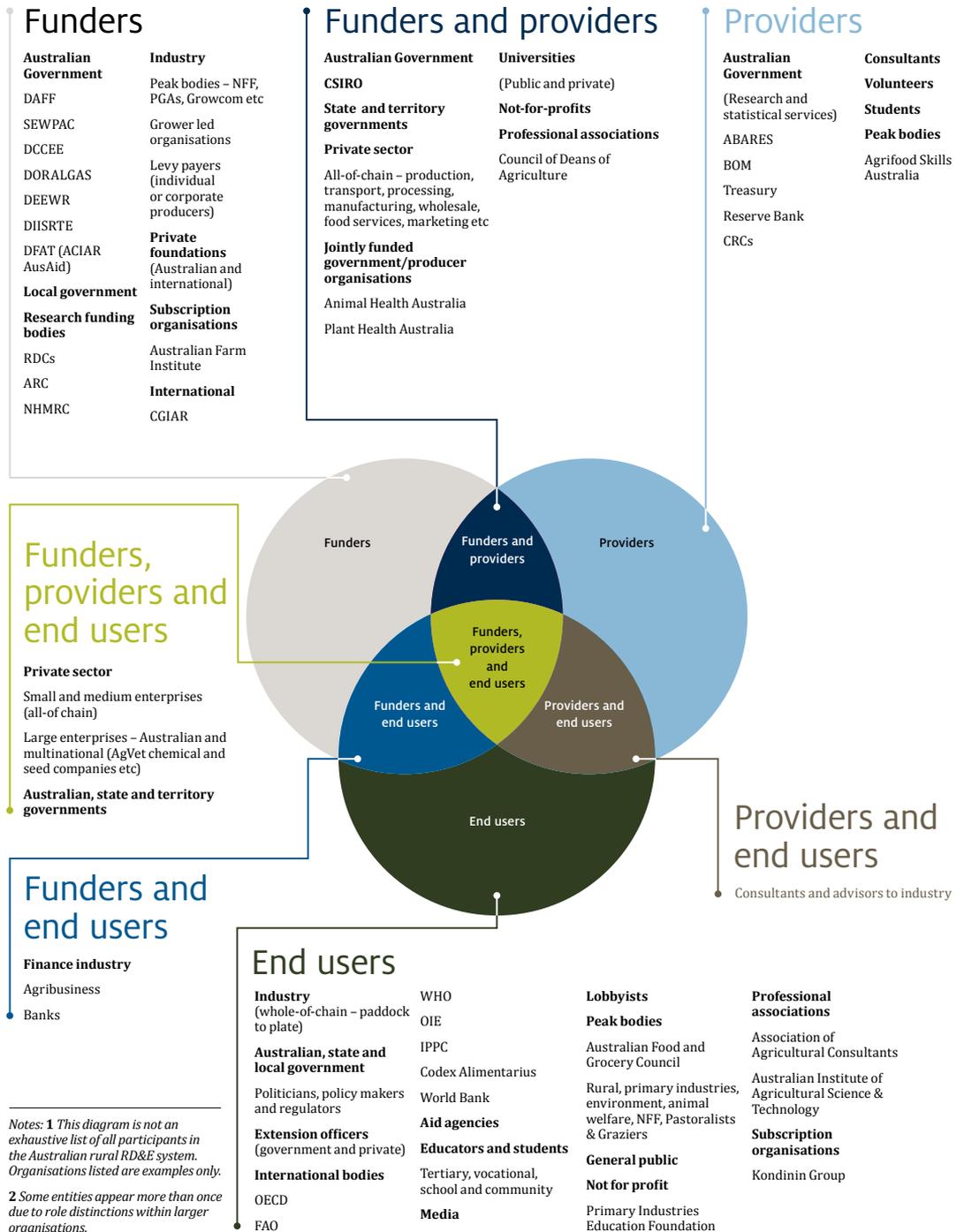
	Statutory RDCs	Industry-owned RDCs
Governing legislation	<i>Primary Industries and Energy Research and Development Act 1989</i> RDC-specific Regulations	<i>Corporations Act 2001</i> Industry-specific Acts
Funding agreement	Covered under the PIERD Act and regulations <ul style="list-style-type: none"> • Policy statement proposes establishing Statutory Funding Agreements 	Statutory Funding Agreements
Scope of responsibilities	Only RD&E <ul style="list-style-type: none"> • Policy statement proposes allowing marketing function 	RD&E plus marketing and industry representation functions for some RDCs
RDC list	Cotton RDC Fisheries RDC Grains RDC Grape and Wine RDC Rural Industries RDC Sugar RDC	Australian Egg Corporation Australian Livestock Export Corporation Limited Australian Meat Processor Corporation Australian Pork Limited Australian Wool Innovation Limited Dairy Australia Limited Forest and Wood Products Australia Horticulture Australia Limited Meat and Livestock Australia

Australia's broader rural research, development and extension system

The RDCs now operate within a complex rural RD&E system that links funders, providers and end users (Figure 1). It comprises the network of individuals and organisations that fund and undertake research and development activities, the extension and consultation networks that support the flow of information and transfer of technology between industry and researchers and the policy and institutional frameworks that support these activities.

In addition to the RDC model, there are several active Cooperative Research Centres (CRCs) that focus on rural industries (CRC 2012). The CRCs are collaborative partnerships between publicly funded researchers (usually at least one Australian higher education institution) and end users (either from the private, public or community sector). CRCs pursue solutions to major challenges that are innovative, of high impact and capable of being effectively deployed by end users. The Australian Government provides funding for the CRC program, and participants in each CRC also provide cash and in-kind contributions.

FIGURE 1 Rural research and development system stakeholders



Other providers of rural R&D include the CSIRO, the Australian Centre for International Agricultural Research (ACIAR) and universities through core funding or Australian Research Council grants. As well, a variety of Australian Government and state and territory government programs fund and provide rural RD&E. The CSIRO has established National Research Flagship programs to address particular scientific challenges, including some from the rural sector. These programs include food futures, sustainable agriculture and water use and climate adaptation. Rural science is also a part of several CSIRO divisions, including food and nutritional sciences, ecosystem sciences, land and water, livestock industries and plant industry divisions.

For rural R&D to achieve the best results, research outcomes must be extended to and adopted by farmers and other end users. Traditionally, state and territory governments provided extension services. In recent years, extension services have broadened to include providers such as private consultants, agribusiness and input suppliers, local grower groups and public information. The result is a set of complex communication and delivery channels through which information, knowledge and ideas flow.

With a variety of participants and stakeholders in the rural RD&E system, effective communication and coordination is crucial. The National Primary Industries Research, Development and Extension Framework (RD&E Framework) plays a major role in identifying priority RD&E requirements for the rural sector and ensuring allocation of the most effective and efficient RD&E capacity to address them (NPIRDEF 2012). The government strongly supports the RD&E Framework and sees it continuing into the future as a fundamental part of the rural RD&E system. The Council of Rural RDCs is a forum for ensuring the RDC model continues to contribute to a sustainable and profitable Australian agricultural sector. The Rural Industries Research and Development Corporation also provides coordination and encourages collaboration between RDCs.

Level of Australian Government investment in rural research, development and extension

Public funding for rural RD&E recognises that as well as the significant returns for a particular industry, rural RD&E generates a high level of spillover benefits for the broader economy and community. It is also preferable to other, more direct, forms of assistance to rural industries as it encourages industries to remain self-reliant, flexible and responsive to consumer demands. The Australian Government recognises that a strong and efficient rural R&D system is important to help primary producers meet a range of future challenges, including climate change, growing world food demand and rising input costs.

The Productivity Commission estimated that approximately \$1.5 billion of public and private funds are invested each year in rural RD&E in Australia (PC 2011). The Rural Research and Development Council extended this figure to \$2.9 billion, when RD&E more broadly related to the rural sector is taken into account (RRDC 2011). This compares with total national R&D spending of around \$27 billion. Through activities such as the RDC model, CRCs, the CSIRO and universities, the Australian Government contributes in the order of \$715 million annually to rural RD&E (PC 2011).

A significant proportion of Australian Government spending on rural RD&E is channelled through the 15 RDCs (an estimated \$235.9 million in 2012–13). As a partner in the RDC model, the Australian Government has a significant stake in the activities and results of the investment of the RDCs. The government has a responsibility to ensure its investments in RDCs are efficiently managed with appropriate levels of governance, and are effective in delivering outcomes for all producers to drive productivity improvements. Other avenues through which the Australian Government contributes to rural R&D are outlined in Table 2.

TABLE 2 Australian Government contributions to rural research and development

Organisation type	Funding (\$m, 2008–09)
Cooperative Research Centres	63
Core funding for CSIRO	193
Core funding for universities	118
Other departmental programs	114
Forgone tax receipts from R&D tax concessions	9

Note: The estimate for the R&D Tax Concession does not include all elements of the program and therefore represents a lower limit of Australian Government support.

Source: Productivity Commission 2011, *Rural Research and Development Corporations*, Inquiry Report No. 52, February, Productivity Commission, Canberra

Recent reviews of the research and development corporations model and broader rural research, development and extension system

In early 2009, the Australian Government established the Rural Research and Development Council to advise on prioritisation of government investment in rural R&D and to establish a national reporting framework to enable performance measurement of the rural R&D system. The government released the council's *National Strategic Rural Research and Development Investment Plan* in June 2011.

In February 2010 the government asked the Productivity Commission to review the rural RDCs. This included examination of the rationale for government investment in rural R&D and the overall effectiveness of the RDC model. The commission's *Inquiry Report on Rural Research and Development Corporations* was released in June 2011.

Both the council and the commission found that rural R&D makes a significant contribution to rural sector productivity growth, with spillover benefits for the wider community, and that on the whole, the RDC model and the wider rural RD&E system are working well. The commission acknowledged the strengths of the RDC model, notably the close links with industry encouraged by the co-investment approach and the 'systems integrating' role that the RDCs play in terms of collaborating with other research funders and influencing research priorities and framework reform (PC 2011).

The success of the RDC model results from the way it combines meeting industry needs with delivering significant public benefits, engages industry in funding R&D and generates industry ownership and adoption of research outcomes. The model demonstrates flexibility in being able to respond to increasing demand for research to deal with priorities associated with managing Australia's natural resources and the challenge of climate change.

However, both the commission and the council recommended a number of improvements to the system to enhance efficiency and value for money, and ensure transparency and accountability to all stakeholders.

Government response to the commission and council reports

The government agrees that the rural RD&E system makes a significant contribution to rural sector productivity growth, with spillover benefits for the wider community. While the RDC model and the wider rural R&D system are working well, some improvements can be made. This policy statement announces some changes to improve the rural R&D system. Its intention is to provide clarity to system participants on government priorities and expectations, to outline the government's role in system oversight, and to ensure rural R&D is resulting in optimal outcomes and providing a strong return on investment.

A number of changes could be made to improve the efficiency and effectiveness of the wider rural R&D system. The Productivity Commission noted that the broad framework for planning, funding and delivering rural RD&E is highly complex; multiple funders and suppliers of RD&E exist and entities that purchase and provide RD&E also supplement funding with cash or in-kind contributions from other sources. Given these complexities, it is important to know what is happening across the whole system, what priorities drive decision-making, what the level of coordination is and what impact the research is having.

As the RDC model is built on a partnership between government and industry, it is important that both levy payers and government partners are satisfied they are receiving the best possible value for money from their significant investment. The RDCs must be accountable for their investment decisions and must actively and transparently communicate with all their stakeholders about their work. Two-way communication is important; industry and government need to make their priorities clear to RDCs so the RDCs can use them as the basis for planning and decision making.

The following sections describe the actions the government intends taking in response to the commission's and the council's recommendations. The statement provides the government's broad intentions for the rural R&D system.

2 Increased transparency and accountability in the research and development corporation model

This section proposes changes to the RDC model to increase accountability and transparency to stakeholders. The changes are intended to provide clarity to levy payers on rural R&D expenditure, and provide confidence to stakeholders that the investment is being well spent. The changes are also intended to increase communication and cooperation within the system and to facilitate broad dissemination of rural R&D outcomes and results to end users.

Principles for the research and development corporation model

The Productivity Commission noted that, as recipients of funding from both industry and government, RDCs should be subject to appropriate accountability measures. This is reflected in existing legislation and funding agreements, but the commission also recommended introduction of a set of principles that relate to what is expected of RDCs as a condition of receiving government funding, and the government's responsibilities in return (Commission recommendation 9.1).

The objects of the RDC model, as set out in the legislation underpinning the RDCs, are to make provision for the funding and administration of research and development relating to primary industries with a view to:

- increasing the economic, environmental and social benefit to members of primary industries and to the community in general by improving the production, processing, storage, transport or marketing of the products of primary industries
- achieving the sustainable use and sustainable management of natural resources
- making more effective use of the resources and skills of the community in general and the scientific community in particular
- improving accountability for expenditure upon research and development activities in relation to primary industries.

The government considers that a set of principles (in addition to the objectives above) to guide the activities of the RDCs, government and industry would provide useful focus for ensuring activity is directed toward the objects of the RDC model. The government therefore accepts the commission's recommendation, and will adopt the following principles.

As a condition of receiving government funding, RDCs should:

- invest in an R&D portfolio that appropriately balances long-term and short-term, high-risk and low-risk, and strategic and adaptive research needs
- collaborate, as appropriate, with other RDCs and research organisations in cross-sectoral research
- have in place suitably resourced processes to facilitate timely adoption of research results
- use government funding solely for R&D and related extension purposes and not for any marketing, industry representation or agri-political activities
- effectively and transparently communicate with levy payers, industry stakeholders, researchers and the Australian Government
- publish relevant information on the outcomes of completed research projects in a timely manner
- ensure that, over time, research programs include research that addresses the needs of levy payers in all regions
- pursue continuous improvements in administrative efficiency.

For its part, the Australian Government should:

- engage openly and constructively with RDCs and other stakeholders
- clearly articulate the role of the RDCs within the broader rural R&D system
- articulate its Rural R&D Priorities and maintain links and synergies between these and the National Research Priorities and the National Innovation Priorities
- where significant public interest requires, clearly indicate specific issues under the Rural R&D Priorities for the RDCs to address
- discharge its administrative responsibilities in relation to the RDC program, in a timely and efficient manner
- effectively communicate with RDCs about opportunities to improve performance, and work with RDCs to resolve issues raised, in a timely manner.

For their part, industry members should:

- continue their support for an effective collective approach to rural research and development through the RDCs in collaboration with the Australian Government
- make their needs and priorities for RD&E clear to RDCs so they can be used as a basis for planning and decision making
- communicate openly with RDCs and government about the performance of the RDC system.

Balanced project portfolio

Research projects can vary significantly in the type of research being conducted, the length of time it takes to conduct the research and to see the outcomes, and the level of risk involved in the project. The government supports the commission's recommendation that the RDCs should invest in a project portfolio that appropriately balances long-term and short-term, high-risk and low-risk, and strategic and adaptive research needs (Commission recommendation 9.1).

Shorter-term projects generally have more easily identifiable outcomes and benefits, meaning they have a lower level of risk. For example, they might examine small changes to existing practice that are highly likely to lead to incremental returns for industry. Strategic research projects are often longer-term in nature and the likely results and benefits can be harder to identify at the outset. These projects can be higher risk, but can also lead to higher returns in the long run, through knowledge and technology breakthroughs.

While short-term applied research projects can be attractive to industry members that wish to see immediate returns on their investment, it is important that investment decisions are also made with a longer-term focus on the future of the whole industry.

The Rural Research and Development Council called for a balance of investment across the wider rural R&D system that would include 40 per cent for what it called transformational investment for long-term outcomes (Council recommendation 11). The council defined transformational research as research driven by ideas that stand a reasonable chance of radically changing the understanding of an important existing scientific concept, or leading to creation of a new paradigm or field of research. Such transformational research is more likely to involve projects which, while they carry greater risk of failure, may result in a new approach to production, creation of new technologies or emergence of an entirely new industry. These kinds of research investments hold the potential for larger productivity, sustainability and competitiveness gains in the long run, which needs to be balanced against the inherent risks and/or opportunity costs of diverting funding from more applied research activities.

While agreeing there needs to be substantial investment in the longer-term future of rural industries, the government does not intend setting specific investment targets for either the overall rural R&D system or for individual entities. The government has noted the council's recommended investment balance, but has decided not to implement it at this stage.

The government will require that RDCs be able to demonstrate a mix of investment projects (short, medium and long-term) and their associated risk profile (low, medium and high) and to report against them. This expectation will be reflected in RDC SFAs.

Statutory funding agreements

To enhance consistency across the RDC model, the government proposes to amend the *Primary Industries and Energy Research and Development Act 1989* (PIERD Act) to allow introduction of SFAs for statutory RDCs, to be renegotiated every four years. SFAs provide an important mechanism for agreement on a range of funding and governance matters, and for setting out requirements for RDCs' transparency and reporting to stakeholders. The SFAs will include similar provisions and obligations as in current SFAs with industry-owned RDCs, but which are not provided for under the PIERD Act. Introducing SFAs will allow detailed arrangements to be modified as needed, without legislative change.

Performance reviews

Regular examination of the performance of all RDCs is important to ensure accountability and help foster a culture of continuous improvement. At present, only industry-owned RDCs must undergo performance reviews on a regular basis. The government intends that all RDCs will be required to commission a regular independent performance review (consistent with Commission recommendation 9.8).

Performance reviews will explicitly examine an RDC's performance against its obligations established under legislation and SFAs as well as the outcomes proposed in its strategic plan. The frequency and scope of review for each RDC will be agreed with the Department of Agriculture, Fisheries and Forestry (DAFF). An independent expert will undertake the performance reviews. RDCs will be required to provide review reports to the Minister for Agriculture, Fisheries and Forestry—along with proposed actions to address any identified performance deficiencies—and then make the reports publicly available.

Communication and accountability

The commission raised concerns about communication between stakeholders within the RDC model, noting that effective communication was important for the RDCs to remain relevant, useful and accountable to those that fund and use their research outputs. The government will continue working to improve communication and engage openly and constructively with RDCs and other agencies. To further promote improved dialogue, the government will arrange for semi-regular attendance of a DAFF observer at RDC board meetings (Commission recommendation 9.5).

While RDCs overall seek the best possible returns on investment, their investment decisions are also guided by a complex array of industry and government priorities. It is vital that RDCs communicate thoroughly and transparently with their industry and government stakeholders to gain a good understanding of priorities as they develop and implement their strategic and annual plans. RDCs should also inform stakeholders about their decision-making processes in relation to setting research programs and funding research projects. The statutory RDCs are already subject to the requirements of the *Freedom of Information Act 1982*, but the government proposes to make more explicit its expectations for information disclosure by all RDCs, by including requirements in SFAs for RDCs to make public the minutes of board meetings and the outcomes of project selection processes. Scrutiny, discussion and review of RDC activities should promote better informed decision making and improved outcomes from the producer and public investments.

The Productivity Commission received submissions from several stakeholders about regional distribution of benefits from levy contributions. The commission found that:

Especially over short time periods, it would be counterproductive for RDCs to try and precisely calibrate the expected regional distribution of benefits from their project portfolios with the regional distribution of levy payments. However, over time, if RDCs' research outputs do not deliver benefits to all levy payers, ongoing support for the levy system and the RDC model could be put at risk.

While it would not be effective for RDCs to try to align distribution of research benefits with distribution of levy payments, RDC research program development should include consideration of regional variations in the agriculture, fisheries and forestry industries. For example, some industries will experience differences in climate, soil, water availability and other operating conditions in different parts of Australia. Research programs should be informed by stakeholder needs and identified priorities and, as outlined above, the reasons for program and project selection should be clearly communicated back to stakeholders. The government expects that over time RDC research programs would include research that addresses the needs of levy payers in all regions.

Eligibility requirements for matching voluntary contributions

The government will also make changes to arrangements for matching voluntary contributions to improve transparency of research outcomes. While voluntary contributions are often provided on a collective industry basis, they can also come from individual growers or other businesses. The Productivity Commission found that, where a voluntary contribution comes from an individual entity, it is possible the resulting R&D may not provide the sort of broader industry benefits to justify matching funding. A basic principle underlying government matching funding is that the wider industry and community have access to the outcomes and benefits of publicly funded research. The government will therefore accept the commission's recommendation that voluntary contributions only be eligible for matching funding where no commercial-in-confidence provisions relating to release of the R&D preclude general access by the wider industry for any longer than is needed to apply for agreed intellectual property protection (Commission recommendation 10.3). The government will also require RDCs and recipients of voluntary contributions to consider, during initial development of the research project, how the research results will be disseminated.

Mechanisms to address underperformance

To improve RDC accountability and foster a culture of continuous improvement within the model, the government will set out a system of escalating monitoring and reporting mechanisms to address any issues of RDC underperformance. As the Productivity Commission noted, existing mechanisms under the PIERD Act, the *Commonwealth Authorities and Companies Act 1997* and included in SFAs provide a good basis for monitoring RDC performance and responding to underperformance (Commission recommendation 9.10).

The mechanisms to be outlined will include a range of intermediate sanctions that government can use before considering withdrawal of funding. This includes the option to:

- direct an RDC to provide the Minister for Agriculture, Fisheries and Forestry with any information required by the Commonwealth relating to expenditure of funds, within a specified period
- direct an RDC to consult with the Commonwealth on remedial action
- require an RDC to undertake remedial action within a timeframe agreed with the Commonwealth.

The government will continue including these monitoring and reporting mechanisms in all new SFAs to ensure they apply across all RDCs.

Summary

The government will:

- adopt a set of principles to guide the activities of the RDCs, government and industry
- require RDCs to demonstrate a mix of investment projects and their associated risk profile, and to report against this
- introduce SFAs for statutory RDCs
- require all RDCs to commission a regular independent performance review
- arrange for semi-regular attendance of a DAFF observer at RDC board meetings
- require RDCs to publicly release the minutes of board meetings and outcomes of project selection processes
- provide matching funding for voluntary contributions only where no commercial-in-confidence provisions relating to release of the R&D would preclude general access by the industry and community any longer than is needed to apply for agreed intellectual property protection
- require RDCs and recipients of voluntary contributions to consider how research results will be disseminated
- set out a system of escalating monitoring and reporting mechanisms to address RDC underperformance.

3 Improved coordination and priority setting across the rural research and development system

System oversight

The Australian Government recognises the importance of consistent approaches across Australian Government programs that fund rural R&D, and that effective coordination must remain a priority.

The National Primary Industries RD&E Framework already plays an important role in coordination of national rural RD&E effort. The framework involves cooperation and collaboration between Australian, state and Northern Territory primary industries agencies, the CSIRO, RDCs, industry and universities. This structure provides a broad representation of stakeholders and interests in the strategic development, planning and implementation of rural RD&E.

The level of coordination between Australian Government agencies and programs for work being done under the framework can be better informed through the Australian Research Committee (ARCom).

Following its *Focusing Australia's Publicly Funded Research* review in 2011, the government announced creation of ARCom, chaired by the Chief Scientist for Australia, to provide it with integrated and strategic advice on future research investments (DIISR 2011). ARCom consists of expert advisers, representatives of major publicly funded research agencies, and senior Commonwealth officials. Its initial key task is to develop a national research investment plan.

ARCom's primary role is to provide advice on investment across the research system, including in the areas of human capital, infrastructure and collaborative activities. As a subset of this work, the government will ask ARCom to assess the level of coordination of Australian Government rural R&D investment. ARCom will advise on whether any improvements can be made in terms of more coordinated funding arrangements and priority-setting, opportunities for collaboration or increasing the focus on rural research. This assessment will cover portfolio-specific R&D funding programs, as well as the CSIRO, RDCs, universities, CRCs and the Australian Research Council.

Rural research and development system performance measurement

The Rural Research and Development Council identified the need for regular examination of the performance of the rural R&D system, to inform strategic planning, guide improvements and demonstrate achievements (Council recommendation 12). The government will ask ABARES to deliver three-yearly system-wide performance reports. These reports will be based on the performance measurement and reporting framework the Rural Research and Development Council developed and ABARES refined in its report *Measuring and reporting trends relating to the performance of Australia's rural RD&E system* (ABARES 2012).

The Productivity Commission's report raised concerns about a lack of detailed and unequivocal data on rural R&D funding and spending flows (Commission recommendation 11.1). The Rural Research and Development Council also recommended increased data collection, to support measurement of performance across the rural R&D system. ABARES has undertaken a scoping study on how data collection could be cost-effectively improved. This work will provide a basis for stakeholder consultation on ways to standardise and simplify reporting requirements across the rural RD&E system. The government acknowledges that more work may be needed in this area to ensure no undue burden is placed on RDCs and that existing data can be used effectively.

Cross-sectoral research

The Australian Government believes system participants need to exhibit a greater level of commitment to collaborate and undertake cross-sectoral research on issues with multiple industry and community beneficiaries and outcomes. Cross-sectoral R&D in particular often results in direct benefits for the industries involved as well as spillover benefits for the community. For example, research that leads to improved land management practices can deliver multiple benefits. Such benefits can include increased productivity from lower input use, and environmental services such as biodiversity protection and improved air and water quality.

An increased focus on cross-sectoral research can be achieved within existing arrangements. Therefore, the government does not support the Productivity Commission's recommendation for creation of a new RDC to undertake broader, public good research (Commission recommendation 8.1).

All parties to the National Primary Industries RD&E Framework have committed to development and implementation of cross-sectoral RD&E strategies. Cross-sectoral issues identified in the first tranche of strategies are water use in agriculture, climate change, biofuels and bioenergy, animal welfare, food and nutrition, and animal and plant biosecurity. An additional cross-sectoral strategy dealing with soils has recently been commissioned. The RDCs are ideally placed to use their expertise and flexible investment model to work together and to bring in other system participants to support implementation of cross-sectoral strategies. The Council of Rural RDCs will provide a forum through which the RDCs can discuss and decide on appropriate implementation arrangements to give effect to particular research priorities identified through cross-sectoral strategies.

Requirements for RDCs to contribute to implementation of cross-sectoral RD&E strategies will be included in SFAs. Individual RDCs will be required to report on their contributions to cross-sectoral research, and the government will ask the Council of Rural RDCs to report annually on the RDCs' collaborative efforts, including their contribution to implementation of cross-sectoral RD&E strategies.

Clearer direction from government

One of the strengths of the RDC model is the strong links with industry, and the guidance RDCs receive from industry on the research needed to improve productivity. The government, as a major investor, also sets broad priorities for rural research. The challenge for the RDCs, in determining which research projects to undertake, is to balance industry research needs with government research priorities. RDCs also need continued flexibility to tailor research to particular circumstances.

The government relationship with RDCs has focused on providing direction on governance arrangements and performance standards, rather than providing direction on what research should be done. Broad guidance is provided through the national Rural R&D Priorities, which aim to foster innovation and guide R&D effort across the whole rural R&D system. The priorities are necessarily broad, in recognition of the diverse players involved in rural R&D. During the government's recent round of consultation on rural R&D, stakeholders clearly indicated that it would be useful for the government to provide more direction and a greater level of detail about what it sees as key issues to be addressed by rural R&D. The government agrees that, while maintaining a broad set of Rural R&D Priorities, there is scope to provide stronger direction.

Rural R&D is conducted within the existing national and rural research priority frameworks (Figure 2). The government will provide stronger direction and clarity to RDCs and other investors by identifying key medium to long-term issues under the national Rural R&D Priorities that it considers individual or groups of RDCs need to address. Currently the generic nature of the national Rural R&D Priorities means that while all RDCs are required to take them into account and report against them, they provide only limited direction. Under revised arrangements, in the lead-up to development of RDC strategic plans the government may identify and advise the RDC of specific issues it believes warrant priority in RDC R&D investment over the life of the strategic plan. The government would work with RDCs to ensure those issues and associated R&D remain relevant over time. RDCs would be required to report the outcomes of this R&D as part of the public reporting of its whole portfolio outcomes.

FIGURE 2 Research priority frameworks

National research priorities
Promoting and maintaining good health through strengthening Australia’s social and economic fabric and preventative healthcare (healthy food production)
An environmentally sustainable Australia
Safeguarding Australia
Frontier technologies for building and transforming Australian industries

Rural R&D Priorities
Productivity and adding value
Supply chain and markets
Natural resource management
Climate variability and climate change
Biosecurity

Supporting Rural R&D Priorities
Innovation skills
Technology

Summary

The government will:

- ask ARCom to assess the level of coordination of Australian Government rural RD&E investment
- ask ABARES to deliver three-yearly system-wide performance reports on Australia’s rural RD&E system
- include requirements for RDCs to contribute to implementation of cross-sectoral RD&E strategies in SFAs
- ask the Council of Rural RDCs to report annually on RDCs’ collaborative efforts
- identify key medium to long-term issues under the national Rural R&D Priorities that it considers RDCs need to address.

4 Increased range of mechanisms for pursuing productivity growth

The R&D delivered through the RDC model is vital to the ongoing productivity and competitiveness of Australia's rural industries, and in turn the health and resilience of Australia's rural and regional communities. Consistent with its preliminary response to the Productivity Commission's report, the government remains committed to maintaining the current cap on its dollar-for-dollar matching of eligible industry R&D levy contributions.

Private investment

Matching funding for voluntary contributions plays an important role in encouraging private investment in rural R&D, and helping small and emerging industries fund rural R&D of collective benefit. As an incentive for further private investment and to improve consistency, the government proposes to extend the availability of its matching funding for voluntary contributions to all RDCs. However, it is important to ensure availability of matching funding for voluntary contributions does not act as a disincentive for industries to move toward formal levy collection. The government will therefore monitor trends in take-up of matching funds for voluntary levy contributions and will require that government funds be allocated to match R&D funded by statutory levies as a priority.

The Rural Research and Development Council found that Australia has relatively low levels of business sector investment in rural RD&E compared with other OECD countries. Similarly, the Productivity Commission reported that in most developed countries the role of private sector funding for rural R&D has been increasing. However, in Australia the private sector contribution is comparatively low; the commission called for a more appropriate balance between private and public funding. The council recommended that the government encourage industry and researchers to strengthen links that increase the flow of international capital into Australia's rural RD&E system (Council recommendation 10). While acknowledging that the government has taken, and continues to take, steps to encourage the private sector to invest in rural R&D, the council identified two opportunities to further promote private investment. The government accepts the council's recommendation, and will implement both suggestions, outlined below.

Develop an information package for researchers

The government will prepare and distribute an information package to help researchers across the rural R&D system pursue investment from private sources for specific projects. The package will increase awareness among researchers of opportunities and incentives for collaboration with the domestic and international private sector, and propagate the message that business investment in rural R&D is valuable and desirable.

Promote Australian rural research and development capabilities to potential overseas investors

The government will ask DAFF (in consultation with Austrade, RDCs and relevant research institutions) to develop a strategy to attract foreign investment into Australian rural R&D. Attraction of investment in this area will form part of a government strategy to attract foreign investment into Australian innovation.

The Australian Government introduced the R&D Tax Incentive by replacing the previous R&D Tax Concession from 1 July 2011. The new tax incentive provides generous benefits to companies of all sizes to undertake eligible R&D activities in all industry sectors, including the rural sector. The R&D Tax Incentive is also designed to encourage foreign-owned companies to invest in R&D activities in Australia by removing the previous requirement of holding the resulting intellectual property in Australia. DAFF will work with AusIndustry to explore opportunities for improving promotion and marketing of the R&D Tax Incentive to encourage companies in the rural sector to better access the tax benefits. The government will continue monitoring implementation of the R&D Tax Incentive and will review the program after two years' operation to ensure it delivers the intended benefits to Australian business.

Extension and adoption of research outcomes

Public research, development and extension account for two-thirds of Australian agricultural productivity growth (Sheng et al. 2011). While R&D contributes to long-term productivity gains, extension can generate higher short-run productivity gains, by ensuring a higher proportion of farmers become early adopters of R&D outcomes. In fact, increased investment in extension in the short run can enhance total factor productivity growth by bringing forward adoption of currently available technologies and knowledge (Sheng et al. 2011). The government sees benefit in further understanding why farmers adopt R&D and what impediments deter adoption. The government will commission ABARES and RDCs to undertake a study to identify impediments to adopting outcomes of rural research and what incentives or extension techniques would increase the rate and timeliness of adoption of innovation.

As the commission noted, no matter how intrinsically valuable a piece of rural R&D may be, if its outcomes do not result in changed practices, then beyond the knowledge generated, the community would enjoy no benefit from the research. The commission found that adoption of research outputs should be treated as an integral part of the R&D planning and delivery process, and that this does not always appear to have been the case for RDC-funded research. Furthermore, the commission found that for much rural R&D undertaken without RDC involvement and the industry linkages that involvement brings, the attention given to adoption pathways was less again.

During the government's recent rural R&D policy consultation round, stakeholders said:

- an appropriate balance needs to be struck between expenditure on R&D and extension, and this will differ between industries
- an extension and adoption component needs to be built into R&D project plans
- the winding down of the state government based extension services created a gap.

While extension operates differently in each industry, on the whole it occurs through a maze of different providers and access points, through private consultants, agribusiness and input suppliers, local grower groups, and public information obtained through the internet, conferences, demonstrations, workshops and publications. The result is a set of complex communication and delivery channels through which information, knowledge, new learning and ideas flow.

There is a lack of data on total expenditure on rural extension services. This is due to several factors including the complex channels discussed above, difficulty in obtaining data on expenditure by private providers, the funding of extension services through several Australian Government portfolios such as agriculture, environment, innovation and climate change, and lack of understanding of spillovers from international agricultural programs coordinated by agencies such as ACIAR or DAFF.

Consistent, nationwide time series data on extension expenditure and delivery would help stakeholders understand the impact and effectiveness of rural R&D. Some existing data gaps will be addressed by including an assessment of extension in the regular reports on rural R&D system performance to be conducted by ABARES. The reports will assess the level of expenditure, the number and qualifications of staff involved in extension activities and the location of these services to highlight service overlaps or gaps (lack of service or expertise) in the system.

Role of research and development corporations and others in extension and adoption

The government believes RDCs should have in place suitably resourced processes to facilitate timely adoption of research results. This does not necessarily mean the RDCs themselves must be the vehicle through which R&D outcomes are transmitted to producers. The government acknowledges that many industries have well-established public or private extension arrangements which should not be replaced or duplicated. Rather, the government will include three requirements relating to extension and adoption in the SFAs for all RDCs. They will require each RDC to:

- include in its strategic plan an extension plan which outlines the pathways to adoption for the R&D it conducts
- consider the pathways to adoption in the planning and approval process for each research project
- report on its extension activities.

DAFF will also ensure that extension is included in all R&D project plans funded within the portfolio by including these obligations as part of grant contracts, as applicable. DAFF will facilitate adoption of research outcomes by raising awareness (among researchers funded through departmental programs and RDCs) of opportunities to access further government funding or advice on commercialising research outcomes. This may include DAFF's Export Facilitation Service and Commercialisation Australia.

The government will continue working with other parties to the National Primary Industries RD&E Framework to ensure extension and adoption priorities are adequately understood and addressed during implementation of sectoral and cross-sectoral strategies under the framework. Information gathered through these strategies will aid extension-related data collection and performance measurement.

Capacity building of the rural research workforce

The Rural Research and Development Council's investment plan found a shortfall in qualified researchers in the agriculture, fisheries and forestry sectors. Analysis has indicated that an increasing skills deficit and an ageing rural research workforce may mean the rural sector already has insufficient capacity to develop and adopt innovations at the desired rate. A greater rural research workforce capacity needs to be built through high quality education and training. The council suggested that the government reward and retain world-class researchers through commitments above current investment levels.

The government accepts the council's recommendation to apply rural research funds in ways that value research excellence as well as research impact, and raise the profile of agriculture, fisheries and forestry within the broader research community (Council recommendation 7). RDCs, universities and relevant government agencies will work on initiatives to maintain and improve the capacity of the rural research workforce.

The government will undertake the following initiatives to encourage students and researchers at all levels to undertake and continue a career in rural research.

Greater emphasis on rural science under the Australian curriculum

The Australian curriculum provides opportunities for students to learn about the role of rural industries in Australia. Opportunities already exist for teachers to include this topic in the science learning area and in the cross-curriculum priorities, particularly in sustainability. Additional opportunities will be afforded through the technologies learning area.

The Australian Government will encourage a coordinated approach with organisations working with Education Services Australia to support development of and access to high quality online resources relating to rural industries and technologies aligned with the Australian curriculum. The government supports the work of organisations, such as the Primary Industries Education Foundation and the Primary Industry Centre for Science Education, which have been actively promoting rural science to school students.

Raising further interest in rural science at the primary and secondary school levels

Scientists in Schools is a national program that creates and supports long-term partnerships between teachers and scientists or mathematicians. The program aims to stimulate and increase students' interest in science, promote school science education and broaden awareness of the types and variety of science related careers through establishment of partnerships between schools and working scientists.

Through this program, the Australian Government will encourage additional partnership opportunities between rural scientists and teachers in both primary and secondary schools to enhance students' interest in rural science.

Overseas postgraduate scholarships and postdoctoral fellowships for Australian early career researchers to acquire international experience

Australian universities struggle to attract students to undergraduate and postgraduate study in agricultural science. The pool of graduating agriculture students is inadequate to meet job market needs and the top students readily gain attractive employment opportunities, decreasing the attractiveness of postgraduate study. The RDCs fund some undergraduate and postgraduate scholarships to encourage students to undertake research careers in specific industries, but this has limited effect on the pool of students choosing to enter the research workforce. As a result of the government's 2011 policy statement, *An Effective Aid Program for Australia: Making a real difference—Delivering real results* (AusAid 2011), there will also be increased focus on agricultural research for international development aid. This will place further demand on Australian expertise as more opportunities for overseas research become available.

The government will ask the domestic rural R&D agencies and universities to cooperate with ACIAR to establish additional overseas-based postgraduate scholarships and postdoctoral fellowships. The scholarships will be established with a view to researchers returning to Australia to apply and build on knowledge gained overseas.

The program will post early career researchers or students to developing countries to undertake aid-related agricultural research. This will create further links between Australian experts and overseas institutions, and will provide an exciting opportunity to promote agricultural science to university students. Projects will focus on agricultural research that benefits both the developing countries and Australia.

Summary

The government will:

- extend the availability of government matching funding for voluntary contributions to all RDCs
- prepare and distribute an information package to help researchers across the rural R&D system pursue investment from private sources
- promote Australian research capability to overseas investors
- explore opportunities to encourage companies in the rural sector to better access the R&D Tax Incentive
- commission a study to identify the impediments to adopting outcomes of rural research and incentives to increase the rate and timeliness of adoption
- include requirements about extension and adoption of R&D in the SFAs for all RDCs
- encourage development of and access to high quality online resources about rural industries that are aligned with the Australian curriculum
- encourage additional partnership opportunities between rural scientists and teachers to enhance student interest in rural science
- ask domestic rural R&D agencies to establish additional overseas-based postgraduate scholarships and postdoctoral fellowships.

5 Increased operational efficiencies and value for money on research and development investment

The government is committed to improving the efficiency and effectiveness of the RDC model to ensure industry and the community receive maximum benefit from the substantial public investment in rural R&D. The government is conscious that RDCs are not exposed to competition as a driver of responsiveness and operating efficiencies, and that it is therefore important to regularly scrutinise their performance.

Evaluation

The major focus of the government's existing scrutiny of RDC performance is to ensure compliance with relevant legislative, regulatory and governance requirements. For industry owned companies, the government is also phasing in requirements for RDCs to evaluate the efficiency, effectiveness and impact of their research programs. Evaluation is a key component of understanding the impact of R&D investment. The government will continue introducing requirements into SFAs for the RDCs to undertake actual and before-the-event project evaluations and to participate in any evaluation established for all RDCs. The government will also continue encouraging RDC participation in the voluntary program-wide project evaluation process facilitated by the Council of Rural RDCs (Commission recommendation 9.7).

Director selection processes

For statutory RDCs, board members are selected by a selection committee (includes nominations from industry representative bodies), which invites nominations from interested parties, evaluates candidates against a skills matrix and provides a recommendation to the minister. The number of candidates the selection committee recommends is generally the same as the number of positions to be filled. The minister is responsible for appointing board directors.

The government proposes to amend the PIERD Act to improve the flexibility and accountability of selection processes for statutory RDC board directors. Selection committees will be required to provide the Minister for Agriculture, Fisheries and Forestry with a set number of nominated candidates that is higher than the number of vacancies, to allow some flexibility when selecting directors. Members of selection committees will be appointed by the minister and be independent and skills-based rather than representative.

Selection committees will be asked to consider the Nolan Principles when selecting candidates for nomination. The Nolan Principles—or Seven Principles of Public Life—are selflessness, integrity, objectivity, accountability, openness, honesty and leadership (Committee on Standards in Public Life 1995).

Enabling marketing by statutory research and development corporations

The Productivity Commission observed that combining R&D and marketing functions in one organisation can lead to administrative savings as well as synergies through, for example, being able to factor customer requirements into research programs. Industry owned companies have recognised the benefits of combining functions, and the commission recommended that statutory RDCs similarly be allowed to expand their range of functions (Commission recommendation 9.3). The government accepts this recommendation and will amend the PIERD Act to allow statutory RDCs to undertake marketing, where the relevant industry requests this and agrees to raise a marketing levy.

Similar requirements regarding governance and accountability of R&D and marketing funds, as currently offered to industry owned company RDCs, will apply to statutory RDCs that take on a marketing role.

Collaboration and amalgamation

The Productivity Commission discussed the possible efficiencies that could be gained by the RDCs pooling their administrative processes, but also noted the importance of industry-specific expertise for certain RDC functions. The government will continue strongly encouraging collaboration between RDCs where this would increase efficiency, and seeking operational efficiencies from, for example, RDCs pooling administrative processes and co-locating offices. The government will ask the Council of Rural RDCs to report to the Minister for Agriculture, Fisheries and Forestry yearly about RDCs' existing and proposed collaborations.

Where an industry can demonstrate sufficient support from its members, the government will also favourably consider proposals for mergers of RDCs. Administrative savings and economies of scale could be achieved from such amalgamations, allowing a greater proportion of funds to be spent on R&D.

Ministerial approval of plans

The Productivity Commission suggested that the requirement for ministerial approval of statutory RDC strategic plans and annual operating plans imposed an undue administrative burden on RDCs. Given that the Australian Government provides approximately \$200 million in matching funding annually to RDCs, it is important for it to have a level of involvement in priority setting and planning to ensure the community receives the maximum possible benefit from the considerable public investment in R&D. The government considers that the most appropriate point for this to occur is during development of strategic plans, which set out an organisation's priorities for the coming three to five years. All RDCs will be required to seek the approval of the Minister for Agriculture, Fisheries and Forestry for their strategic plans, and the government will seek to remove the requirement in the PIERD Act for statutory RDCs to submit their annual operating plans to the minister for approval.

Streamlining levy processes

As recommended by the Productivity Commission, the government will seek to amend the levies imposition Acts to remove product-specific maximum levy rates (Commission recommendation 10.1). This change will improve outdated legislation and simplify the process for industries wishing to increase their investment in research or marketing. The level of government support in the form of matching funding for producer levies will continue to be capped at 0.5 per cent of gross value of production.

Summary

The government will:

- require RDCs to undertake actual and before-the-event project evaluations and to participate in any evaluation established for all RDCs
- improve the flexibility and accountability of selection processes for statutory RDC board members
- ask selection committees to consider the Nolan Principles when selecting candidates for an RDC board
- allow statutory RDCs to undertake marketing, where requested by industry
- ask the Council of Rural RDCs to report yearly on existing and proposed collaboration by RDCs
- remove the requirement for statutory RDCs to submit annual operating plans to the minister for approval
- seek to remove product-specific maximum levy rates from legislation.

6 Implementation

Legislative and governance changes

Several changes in this policy statement will require amendments to the PIERD Act. The most notable change will be to allow the government to introduce SFAs for statutory RDCs. These SFAs will provide transparency to stakeholders on RDC activity, and will promote consistency in the obligations of statutory RDCs and industry-owned RDCs. Introduction of SFAs for statutory RDCs also means some of the other changes proposed in the policy statement can be implemented through these SFAs, rather than through further legislative change.

Many initiatives proposed in the policy statement will be reflected in SFAs. For industry-owned RDCs, which already have SFAs in place, this will require the proposed changes to be included when the current SFAs are renewed. For statutory RDCs, the changes will be included as the new SFAs are introduced, following amendment of the PIERD Act.

Other notable amendments to the PIERD Act proposed in the policy statement relate to allowing statutory RDCs to undertake marketing, and removal of the requirement for statutory RDCs to submit their annual operating plans to the minister for approval.

The policy statement also proposes an amendment to the levies impositions Acts to remove product-specific maximum rates. The levies imposition Acts relating to rural R&D levies are the *Primary Industries (Excise) Levies Act 1999* and the *Primary Industries (Customs) Charges Act 1999*.

Consultation

The government will ask DAFF to consult relevant stakeholders on detailed implementation of the statement. In particular, DAFF will consult RDCs, the Council of Rural RDCs, state and territory primary industry departments and other Commonwealth agencies on the initiatives that require a collaborative approach to implementation.

Initiatives implemented through current administrative and governance arrangements

This policy statement largely encourages change through strengthening of existing administrative and governance arrangements, rather than through establishment of new institutions or processes. This includes continued government support to the RDC model as a whole, a greater commitment particularly by RDCs to the National Primary Industries RD&E Framework, and greater coordination of Commonwealth investment in rural RD&E, through the Australian Research Committee.

Increased communication between the Australian Government and RDCs will facilitate implementation of many changes. In particular, greater communication on the principles for the RDC model, the Rural R&D Priorities, and expectations on extension and adoption will provide clarity to system participants on government priorities and expectations. The policy statement also announces some changes to RDC reporting, to both government and levy payers, to increase transparency and accountability of RDCs.

Review and evaluation

The government will conduct future independent and public reviews of the RDC model and the broader rural RD&E system. The rural R&D system performance reporting, additional program evaluation requirements and examination of RDC performance will feed into these reviews.

Appendix

Recommendations and government responses

Recommendation	Government response
<p data-bbox="153 710 830 805">PC Rec 4.1 The Australian Government should incorporate the following high-level public funding principles in all of its rural R&D policies and funding programs.</p> <ul data-bbox="287 814 830 1393" style="list-style-type: none"><li data-bbox="287 814 830 971">• 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 that would not otherwise be undertaken.<ul data-bbox="319 980 830 1393" style="list-style-type: none"><li data-bbox="319 980 830 1018">- Public funding programs for rural R&D should:<li data-bbox="319 1028 830 1113">- give appropriate recognition to non-R&D related drivers of performance improvement in the rural sector<li data-bbox="319 1123 830 1247">- have regard to policy levers other than public funding (and any related funding instruments such as compulsory producer levies) for addressing potential under-investment in rural R&D<li data-bbox="319 1256 830 1323">- facilitate, or at least not impede, structural adjustment in the sector<li data-bbox="319 1332 830 1393">- be consistent with other policies and programs designed to improve the performance of the sector.	<p data-bbox="844 710 1228 738">Agreed</p> <p data-bbox="844 748 1228 875">The principles outlined in the commission's report provide useful guidance which can support design of rural R&D policies and funding programs.</p>

Recommendation	Government response
PC Rec 4.1 <i>continued</i>	<ul style="list-style-type: none"> • The design of individual funding programs should: <ul style="list-style-type: none"> - encourage the efficient delivery of quality research outputs, including through promoting effective intra and inter-program coordination - facilitate collaborative research effort where this would improve the quality of research outcomes or avoid wasteful duplication of research effort - help ensure that there are appropriately resourced mechanisms to facilitate the adoption of worthwhile research outputs - promote transparency and accountability in regard to program outcomes through effective governance, evaluation and reporting requirements - facilitate future research efforts by providing for appropriate disclosure and dissemination of research results - promote transparency in funding flows and discourage leveraging behaviour that is administratively costly relative to the benefits provided, and/or designed solely to shift costs onto other parties. • The Australian Government should further: <ul style="list-style-type: none"> - commit to regular independent review of its various rural R&D programs against these principles - through the Primary Industries Ministerial Council, seek the agreement of State and Territory Governments to incorporate the principles and the review requirement: <ul style="list-style-type: none"> - in all of their rural R&D policies and funding programs - in the National Primary Industries RD&E Framework initiative.

	Recommendation	Government response
PC Rec 7.1	<p>The basis on which the Australian Government matches levy and other eligible industry contributions to the Rural Research and Development Corporations (RDCs) should be modified as follows:</p> <ul style="list-style-type: none"> • The generally applicable cap on the Government’s dollar for dollar matching of eligible industry contributions should be reduced from 0.50 per cent to 0.25 per cent of an industry’s gross value of production (GVP). This reduction should be phased-in over 10 years, with the cap reducing by 0.025 per cent of GVP each year during this period. • There should be a new uncapped matching contribution of 20 cents per dollar for eligible industry contributions in excess of the applicable cap on dollar for dollar matching. This new contribution should be introduced in full at the commencement of the phase-in of the lower cap on matching dollar for dollar contributions. • Contributions made to RDCs through donor company arrangements by an individual private entity (as defined in recommendation 10.3) should not be eligible for any matching government contributions. <p>Future matching contribution arrangements for very small industries paying statutory levies or making voluntary contributions to the Rural Industries RDC (RIRDC) or Horticulture Australia Limited (HAL) should be determined by the Department of Agriculture, Fisheries and Forestry, following further consultation with the Council of Rural Research and Development Corporations, HAL, RIRDC and the industries involved. This consultation process and the subsidy arrangements that emerge from it, should aim to:</p> <ul style="list-style-type: none"> • deliver a reasonable level of resources for research activity in the industries concerned • ensure that access to these arrangements is appropriately limited in terms of both industry coverage and the duration for which special funding support is available. <p>This process should also encompass future arrangements for matching voluntary contributions made to RIRDC by the Fodder and Horse industries.</p>	<p>Not agreed</p> <p>In its preliminary response to the Productivity Commission’s report, the government said it would not adopt the recommendation to halve the cap on government matching contributions to the RDCs in conjunction with introduction of a new subsidy above the cap. The government remains committed to maintaining the cap on the dollar-for-dollar matching of eligible industry contributions at 0.5 per cent of GVP.</p> <p>The government’s response about the contributions to RDCs by an individual private entity is under the response to recommendation 10.3.</p> <p>The government agrees that future matching contribution arrangements for very small industries making voluntary contributions should be determined by the Department of Agriculture, Fisheries and Forestry, following further consultation with relevant stakeholders.</p>

Recommendation	Government response
<p>PC Rec 8.1 The Australian Government should establish and fund a new Rural Research and Development Corporation (RDC), 'Rural Research Australia' (RRA).</p> <p>RRA's broad remit should be to invest, on behalf of the Australian Government, in non-industry specific R&D that promotes productive and sustainable resource use by Australia's rural sector.</p> <p>Its precise remit should be developed through a consultative process, involving engagement by RRA's board with the Department of Agriculture Fisheries and Forestry (DAFF) and other relevant areas of the Australian Government; the Primary Industries Standing Committee (PISC) of the Primary Industries Ministerial Council; industry RDCs; major research providers and researchers. As part of this process—which should be completed with 12 months—explicit consideration should be given to:</p> <ul style="list-style-type: none"> • bringing the 'national rural issues' R&D (and the associated funding) that is currently the responsibility of the Rural Industries RDC within the new entity • the scope to beneficially transfer any Australian Government departmental research programs (and the associated funding) into RRA. <p>However, RRA's remit should not extend to the sector-specific, broader resource management, research undertaken by the Fisheries RDC.</p> <p>RRA's board should then seek the agreement of the government for its proposed remit and initial research agenda; and the funding appropriation necessary to deliver that agenda.</p> <p>RRA should be created as a statutory R&D corporation under the <i>Primary Industries and Energy Research and Development Act 1989</i> (Cwlth).</p> <p>In each of the first two years of its operations, RRA should receive seed funding from the Australian Government of \$5 million to meet establishment expenses, to allow it to engage with relevant parties as part of the remit and agenda setting process, and to cover the costs of any early research contracts.</p> <p>Thereafter, its funding appropriation should be provided under a quadrennial agreement at a level which would allow it to implement the agreed agenda in a timely way and without excessive reliance on leveraging from other funding sources, including from other RDCs.</p>	<p>Not agreed</p> <p>The government does not accept the recommendation to create a new RDC to undertake broader, public good research. The government believes that increased focus on collaboration and cross-sectoral research can be achieved within existing arrangements. Cross-sectoral strategies have been identified under the National Primary Industries RD&E Framework, and all parties have committed to their implementation. The government will include specific requirements for RDCs to contribute to implementation of cross-sectoral RD&E strategies in their statutory funding agreements. Individual RDCs will be required to report on their involvement in cross-sectoral research and the government will ask the Council of Rural RDCs to report annually on the collaborative efforts of the RDCs, including their contribution to implementation of the cross-sectoral strategies.</p>

Recommendation	Government response
PC Rec 8.1 <i>continued</i>	<p data-bbox="290 215 806 338">More generally, in establishing RRA, the Government should clearly signal that the new entity is to become an integral part of the RDC arrangements and that its future funding appropriations will reflect this.</p> <p data-bbox="290 354 806 443">RRA should operate under the same broad governance, reporting and consultation requirements as other statutory RDCs. However, it should:</p> <ul data-bbox="290 458 806 1119" style="list-style-type: none"> • be exempted from the designated industry body provisions • be subject to the existing rather than the proposed new general arrangements governing Ministerial involvement in priority setting and planning processes (see recommendation 9.2) • be excluded from the proposed change to allow statutory RDCs to take on marketing functions (see recommendation 9.3) • have special board composition and selection procedures: specific provision should be made to include a senior member from DAFF; an equivalently senior State and Territory Government member nominated by PISC; and either the independent chair of the Council of Rural Research and Development Corporations, or a chair of one of the industry RDCs elected by the Council. The remaining board members should be appointed by the Minister based on the advice of a selection committee chaired by the Secretary of DAFF. <p data-bbox="290 1134 806 1252">In giving effect to the requirement for periodic independent reviews of the performance of all RDCs (see recommendation 9.8), the reviews of RRA's performance should explicitly assess whether:</p> <ul data-bbox="290 1268 806 1506" style="list-style-type: none"> • it has engaged effectively with industry RDCs • its research portfolio includes an appropriate number of collaborative projects with industry RDCs and/or other industry interests • its extension strategies have given suitable attention to drawing on the skills and producer linkages of the industry RDCs. <p data-bbox="290 1521 806 1704">Following the establishment of RRA, the other RDCs—except for the Fisheries RDC—should be left to focus predominantly on funding R&D of direct benefit to their levy payers, with their funding contributions from the Australian Government gradually adjusted in accordance with recommendation 7.1.</p>

	Recommendation	Government response
PC Rec 9.1	<p>As a condition of receiving government funding, Rural Research and Development Corporations (RDCs) should:</p> <ul style="list-style-type: none"> • invest in a project portfolio that appropriately balances long-term and short-term, high-risk and low-risk, and strategic and adaptive research needs • collaborate, as appropriate, with other relevant RDCs and research organisations in cross-sectoral research • have in place suitably resourced processes to facilitate timely adoption of research results • use government funding solely for R&D and related extension purposes and not for any marketing, industry representation or agri-political activities • promote effective communication with industry stakeholders, researchers and the Australian Government • publish relevant information on the outcomes of completed research projects in a timely manner • through their processes for nominating potential directors and/or engagement with the Government on potential director appointments, facilitate boards that have a suitable balance of relevant skills and experience, rather than a balance of representative interests • pursue ongoing improvements in administrative efficiency, with regard to both their own activities and those of their research partners • undertake rigorous and regular ex ante and ex post project evaluation • participate in regular and transparent independent performance reviews • remedy identified performance problems in an effective and timely manner. • the program as a whole, and identification of specific performance problems 	<p>Agreed</p> <p>The government accepts that a set of principles outlining responsibilities of key participants in the RDC model would help participants meet the overall objective of the RDC model. The principles set down in the policy statement are based on those recommended by the commission. The government considers that some of the commission’s suggestions are proposals for government action rather than principles, and have been adopted elsewhere in the statement.</p>

Recommendation	Government response
<p>PC Rec 9.1 <i>continued</i></p>	<p>For its part, the Australian Government should:</p> <ul style="list-style-type: none"> • clearly articulate the role of the RDCs within the broader rural R&D framework • engage openly and constructively with RDCs and other stakeholders • discharge its administrative responsibilities in relation to the RDC program in a timely and efficient fashion • verify that nominated representative bodies for each of the statutory, industry RDCs remain suitably representative of the industries concerned and are not overly dependant on funding from the RDCs they are meant to oversee • monitor the RDCs' performance in a way that will enable transparent assessment of the outcomes of effectively communicate with RDCs in regard to opportunities to improve performance, and take prompt and appropriate action if performance problems are not satisfactorily addressed.

	Recommendation	Government response
PC Rec 9.2	<p>Consistent with the overarching public funding principles for the rural R&D framework (see recommendation 4.1), the legislation and statutory funding agreements for Rural Research and Development Corporations (RDCs) should indicate that the ultimate objective of the public funding they receive is to induce socially valuable rural R&D that would not otherwise be undertaken.</p> <p>With that guidance and the RDC-specific principles (see recommendation 9.1) in place, requirements for formal Ministerial involvement in research priority setting and approving RDCs' strategic and operating plans should be removed, except for the Fisheries RDC and Rural Research Australia.</p>	<p>Not agreed</p> <p>The government has decided not to set down overarching public funding principles for the rural R&D framework, but rather will set down RDC-specific principles (see response to recommendations 4.1 and 9.1). The government therefore rejects the first part of the recommendation to amend legislation and SFAs to reflect the principles suggested by the commission in recommendation 4.1.</p> <p>Given the large contribution made in matching funding annually to the RDCs, the government considers it important for it to have a level of involvement in priority setting and planning to ensure the community receives the maximum possible benefit from the considerable public investment in R&D. The government considers that the most appropriate point for this to occur is in the development of RDC strategic plans, which set out the organisation's priorities for the coming three to five years. All RDCs will be required to seek ministerial approval for their strategic plans. However, the government will remove the requirement for statutory RDCs to submit their annual operating plans to the minister for approval.</p>
PC Rec 9.3	<p>The <i>Primary Industries and Energy Research and Development Act 1989</i> (Cwlth) should be amended so that the statutory Rural Research and Development Corporations (RDCs)—with the exception of Rural Research Australia—can add marketing to their functions, where this is supported by the majority of levy payers and approved by the Minister for Agriculture, Fisheries and Forestry. The amendments should ensure that government contributions to any RDC that takes on marketing functions are only used to fund research and development, as defined in the Act.</p>	<p>Agreed</p> <p>The government will support allowing statutory RDCs to undertake marketing, where an industry requests it. Any proposal would need to ensure that RDCs clearly delineate between their R&D and marketing programs and that government matching contributions are only used to fund R&D. RDCs and industry would also need to demonstrate that allowing an RDC to take on a marketing function would not detract from the RDC's R&D activities.</p>

	Recommendation	Government response
PC Rec 9.4	<p>The case for making industry representation a generally allowable function for any RDC—statutory or industryowned—should be considered as part of the proposed future review of the new RDC arrangements (see recommendation 12.1). In the interim, the two RDCs that already have an industry-representation role—the Australian Egg Corporation Limited and Australian Pork Limited—should be allowed to maintain that function.</p>	<p>Agreed in principle</p> <p>The government recognises that it would be desirable to conduct periodic reviews of the RDC model, including appropriate roles for industry owned RDCs. The government will allow Australian Pork Limited to continue its representative role. The Australian Egg Corporation Limited is not permitted to undertake an industry representative role.</p>
PC Rec 9.5	<p>Provision should be made in statutory funding agreements for the Australian Government to appoint a director to the board of an industryowned Rural Research and Development Corporation (RDC) where that RDC requests such an appointment in order to complement existing board skills and improve dialogue with the Government. This director should not be a current Commonwealth public servant, but should have significant contemporary experience in, and knowledge of, government policy processes and public administration.</p> <p>For the same purpose, the <i>Primary Industries and Energy Research and Development Act 1989</i> (Cwlth) should be amended so that the Government can, if requested to do so by a statutory industry RDC, select and appoint a single director to that RDC’s board outside of the usual nomination process. Such a director could be, though need not be, a current Commonwealth public servant. Government appointments to the board of Rural Research Australia should be the subject of entity specific provisions (see recommendation 8.1).</p>	<p>Agreed in principle</p> <p>The current skill set requirements for RDC Boards ensures skills in public administration are already addressed in board selection; however, the government recognises the importance of effective communication and of engaging openly and constructively with the RDCs. As a step toward promoting improved dialogue, the government will seek semi-regular attendance of a DAFF observer at RDC board meetings.</p>
PC Rec 9.6	<p>The <i>Primary Industries and Energy Research and Development Act 1989</i> (Cwlth) should be amended to make the board of each statutory Rural Research and Development Corporation responsible for electing one of its appointed directors as chairperson, and setting the term of this appointment.</p>	<p>Not agreed</p> <p>The government considers that current arrangements are appropriate.</p>

	Recommendation	Government response
PC Rec 9.7	<p>The <i>Primary Industries and Energy Research and Development Act 1989</i> (Cwlth), and the statutory funding agreements for industry-owned Rural Research and Development Corporations (RDCs) should be amended so that all RDCs are required to continue to participate in a regular, transparent and comprehensive program-wide project evaluation process, such as that currently facilitated by the Council of Rural Research and Development Corporations (CRRDC).</p> <p>Through the CRRDC, the RDCs should continue to explore means to increase the robustness of this evaluation process, including through a greater emphasis on revisiting past evaluations to assess whether assumptions about such things as adoption rates and additional extension-related costs have proved to be reliable.</p> <p>For the time being, the program-wide evaluation process should continue to be on an annual basis. However, if based on the advice of the CRRDC and the Department of Agriculture, Fisheries and Forestry, the Minister is satisfied that the benefit-cost trade-off is such as to justify a less frequent timeframe, that timeframe should be adjusted accordingly.</p>	<p>Agreed</p> <p>The government accepts the recommendation and will continue introducing requirements into statutory funding agreements for RDCs to undertake project evaluations and participate in any evaluation project established for all RDCs. The government will also continue encouraging RDC participation in the voluntary program-wide project evaluation facilitated by the CRRDC.</p>
PC Rec 9.8	<p>The <i>Primary Industries and Energy Research and Development Act 1989</i> (Cwlth) should be amended so that each statutory Rural Research and Development Corporation (RDC) is required to commission an independent performance review every three to five years. Similarly, statutory funding agreements should continue to require that each industry owned RDC commission an independent performance review every three to five years.</p> <p>The precise frequency and scope of review for each RDC should be agreed with the Department of Agriculture, Fisheries and Forestry.</p> <p>However, every review should explicitly examine the performance of the RDC concerned against the principles articulated in recommendation 9.1, and should also consider the scientific merit of that RDC’s research portfolio.</p> <p>Review reports should be provided to the Minister for Agriculture, Fisheries and Forestry—along with proposed actions to address any identified performance deficiencies—and then be made publicly available.</p>	<p>Agreed</p> <p>The government accepts the recommendation that statutory RDCs, in addition to industry owned RDCs, be required to commission regular independent performance reviews. As recommended, the precise frequency and scope of review for each RDC will be agreed with DAFF. RDCs will be required to provide review reports to the Minister for Agriculture, Fisheries and Forestry, along with proposed actions to address any identified performance deficiencies, and then make the reports publicly available. The government proposes extending statutory funding agreements to statutory RDCs to provide a consistent basis for its relationship with all RDCs.</p>

	Recommendation	Government response
PC Rec 9.9	<p>The Department of Agriculture, Fisheries and Forestry should prepare a publicly available, consolidated, annual monitoring report on the activities of the Rural Research and Development Corporations (RDCs). These monitoring reports should draw, as appropriate, on the outcomes of the program-wide project evaluation process (see recommendation 9.7) and independent performance reviews (see recommendation 9.8), and contain:</p> <ul style="list-style-type: none"> • data on each RDC’s funding arrangements, including a breakdown of industry and matching government contributions, as well as the division of expenditure between R&D-related activity and any other functions • a broad overview of R&D sponsored by the RDCs and associated outcomes • details of any identified breaches of obligations under relevant legislation and associated funding agreements during the monitoring period; and the steps that have been, or will be, taken to address those breaches • a summation of the department’s performance in implementing new R&D levies, and changes to existing levies (see recommendation 10.3). 	<p>Agreed in principle</p> <p>The cost and benefits of annual reporting of the matters outlined in this recommendation need further evaluation given the government’s commitment to three-yearly reporting on the performance of the overall rural R&D system, as outlined in the response to Rural Research and Development Council recommendation 12.</p>

	Recommendation	Government response
PC Rec 9.10	<p>To motivate an under-performing Rural Research and Development Corporation (RDC) to remediate problems identified in an independent performance review (recommendation 9.8), the Department of Agriculture, Fisheries and Forestry (DAFF) should employ an escalating series of monitoring and reporting mechanisms. These should draw on the existing provisions available to DAFF, including to:</p> <ul style="list-style-type: none"> • require an interim follow-up performance review within 12 months • initiate a formal audit of an under-performing RDC by the Auditor-General • invoke its powers under the <i>Primary Industries and Energy Research and Development Act 1989</i> (Cwlth) to direct the conduct of a statutory RDC • apply the provisions in statutory funding agreements enabling it to impose conditions on how, and for what purposes, funds can be spent by an industry owned corporation. <p>If, after a reasonable period of time, it becomes clear that non-pecuniary sanctions have not been sufficiently corrective, then the Australian Government should partially or fully withdraw its funding for the RDC concerned.</p>	<p>Agreed</p> <p>Existing mechanisms under the PIERD Act and included in SFAs provide a good basis for monitoring RDC performance and responding to underperformance. The government will continue including these monitoring and reporting mechanisms in all new SFAs to ensure they apply across all RDCs.</p> <p>The mechanisms include a range of intermediate sanctions the government can use before withdrawal of funding is considered. This includes the option to direct an RDC to provide the Minister for Agriculture, Fisheries and Forestry with any information required by the Commonwealth relating to expenditure of funds, within a specified period; to direct RDCs to consult with the Commonwealth on remedial action; and to require RDCs to undertake remedial action within a timeframe agreed with the Commonwealth.</p>
PC Rec 10.1	<p>Product-specific maximum levy rates should be removed from schedules 1 to 26 to the <i>Primary Industries (Excise) Levies Act 1999</i> (Cwlth).</p>	<p>Agreed</p> <p>The government will seek to amend the <i>Primary Industries (Excise) Levies Act 1999</i> to remove product-specific maximum levy rates. This change will improve outdated legislation and simplify the process for industries wishing to increase their investment in research or marketing. The level of government support in the form of matching funding for producer levies will continue to be capped at 0.5 per cent of GVP.</p>

	Recommendation	Government response
PC Rec 10.2	<p>An indicative time limit of six months should be introduced for the implementation of new levies, and changes to the rates of existing levies, following the receipt of a complying proposal. As part of its annual monitoring report on the Rural Research and Development Corporation program (see recommendation 9.9), the Department of Agriculture, Fisheries and Forestry should report on its performance against this requirement, and where the requirement has not been met, indicate the reasons for this.</p>	<p>Noted</p> <p>The government is committed to improving transparency and timeliness of levy processes; however, many factors influence how quickly a levy proposal is processed and some of these are outside the government’s control. While setting a maximum time limit may not be practicable the current review of the levy principles and guidelines will help identify ways to streamline levy processes.</p>
PC Rec 10.3	<p>Voluntary contributions to Rural Research and Development Corporations should only be eligible for matching government funding if the following conditions are satisfied.</p> <ul style="list-style-type: none"> • At least two non-associated entities—whether directly or through an industry body—have made a financial contribution toward the cost of the research concerned. • There are no commercial-in-confidence provisions precluding general disclosure of the outcomes of the research for any longer than is needed to apply for agreed intellectual property protection. 	<p>Agreed</p> <p>A basic principle underlying government matching funding is that the wider industry and the community have access to the outcomes and benefits of publicly funded research. The government therefore accepts the commission’s recommendation that voluntary contributions will only be eligible for matching where no commercial-in-confidence provisions relating to the release of the R&D would preclude general access for any longer than is needed to apply for agreed intellectual property protection. The government will also require recipients of voluntary contributions to consider, during initial development of research projects, how the research results will be disseminated. However, the government does not accept the need to restrict funding sources for voluntary contributions (i.e. the suggested condition that at least two non-associated entities have made a financial contribution toward the cost of the research).</p>

	Recommendation	Government response
PC Rec 11.1	<p>The Department of Agriculture, Fisheries and Forestry (DAFF) should undertake a scoping study to determine how the data on funding and spending flows within the Australian rural R&D framework might be improved in a cost-effective way to better inform future policy making. In doing so, DAFF should consult with relevant stakeholders, including State and Territory Governments, the Council of Rural Research and Development Corporations, farming groups and the Australian Farm Institute. DAFF should finalise and publish this scoping study within 12 months.</p>	<p>Agreed</p> <p>ABARES has undertaken a study on how data collection could be improved in a cost-effective manner. This work will provide a basis for consultation with relevant stakeholders of how to standardise and simplify reporting requirements across the rural R&D system. The government acknowledges that more work may be needed in this area to ensure that no undue burden will be placed on RDCs and that existing data can be used effectively. The scoping study will provide a basis for regular reporting on the performance of the rural R&D system, to inform strategic planning, guide improvements and demonstrate achievements.</p>
PC Rec 11.2	<p>The Australian Government should establish a subcommittee to its Coordination Committee on Innovation, focused exclusively on rural R&D. That subcommittee should be tasked with:</p> <ul style="list-style-type: none"> • promoting consistency in approaches across specific and more general Australian Government programs that provide funding for rural R&D • liaising with other relevant entities—including the Primary Industries Standing Committee of the Primary Industries Ministerial Council—on the implications of changes in Australian Government funding programs for the totality of the rural R&D framework and on any associated cross-government or industry-government coordination issues that arise • providing advice to the Australian Government on any systemic coordination issues that require remedial action. <p>The subcommittee should also provide input to the development of the research remit for Rural Research Australia (see recommendation 8.1).</p>	<p>Agreed in principle</p> <p>The government has been a strong supporter of increased coordination throughout the rural R&D system through the National Primary Industries RD&E Framework and recognises the need to promote consistency in Australian Government programs that provide funding for rural R&D. Rather than establishing a new subcommittee, as the commission recommended, the government will ask the recently established Australian Research Committee (ARCom) to assess the level of coordination of Australian Government rural R&D investment, and whether any improvements can be made in terms of more coordinated funding arrangements and priority-setting opportunities for collaboration or increasing the focus on rural research.</p>

	Recommendation	Government response
PC Rec 12.1	<p>At the end of the ten-year phase-in of the proposed new government funding arrangements for industry Rural Research and Development Corporations (RDCs)—see recommendation 7.1—there should be a further independent and public review of the RDC model. Amongst other things, that review should examine:</p> <ul style="list-style-type: none"> • the responses of levy payers to the changed matching government contribution regime • the extent to which the changes to the model, and especially the establishment of Rural Research Australia, have helped to increase the amount of additional, socially valuable R&D induced by the Government’s funding contribution • the impacts of the changes to the model on the adoption of research outputs by producers • the case for making industry representation a generally allowable function for any RDC • the arguments for and against continuing to provide matched government funding for contributions to the RDCs by processors • whether the statutory levy rate review requirements have had any effects on the frequency of levy changes • the implications of changes in the wider rural R&D framework for future RDC arrangements. 	<p>Agreed in principle</p> <p>Although the government has not accepted the commission’s recommendations about changes to funding arrangements for the RDC system, the government recognises that it would be desirable to conduct periodic reviews of the RDC model and the wider rural R&D system.</p>
Rural R&D Council Rec 1	<p>The Council recommends increased investment, including by the Australian Government, in rural RD&E to enable Australia to play its part in the global effort to double rural sector output over the next 30 years while utilising proportionally fewer resources; develop a range of technologies and knowledge to contribute to healthy Australian lifestyles and global food security; and produce a wider product range, including food, fibre, energy and bio-based products, as well as ecosystem services.</p>	<p>Noted</p> <p>The government continues to be a significant investor in rural RD&E and will work with participants in the rural RD&E system to improve efficiency, effectiveness and transparency, to ensure investors can be confident their current, and potential future, investments provide value for money. The government has made recent significant additional investments in rural RD&E programs, including the Carbon Farming Futures Program and increases in funding for the Australian Centre for International Agricultural Research.</p>

	Recommendation	Government response
Rural R&D Council Rec 2	The Australian Government should adopt five themes under which investment in rural RD&E will be made: industry development, sustainable production, transformational RD&E, capacity in people and international links.	Noted The investment categories proposed by the RRDC provide useful themes for system wide performance monitoring. However, the government does not intend allocating investment according to these themes. The performance monitoring of the rural RD&E system (see response to RRDC recommendation 12) will inform future decision making about investment in rural RD&E.
Rural R&D Council Rec 3	The Australian Government should continue its support for the rural R&D Corporations model as a critical component of the National Primary Industries RD&E Framework and commit to ongoing support for both of these elements in the transfer of systemwide knowledge to effective rural sector networks. Additional funding mechanisms should be developed with the private sector to support other rural industries in pursuit of the vision set out in this Plan.	Agreed The government's preliminary response to the Productivity Commission's report reiterated the government's ongoing support for the RDC model and maintained the cap on matching funding at the current level. The Australian Government is closely involved in the RD&E Framework, and the Standing Council on Primary Industries has encouraged an increased focus on developing and implementing the respective sectoral and cross-sectoral strategies. Explicit requirements for RDCs to contribute to implementing cross-sectoral RD&E strategies will be included in SFAs. Individual RDCs will be required to report on their involvement in cross-sectoral research, and the government will ask the CRRDC to report annually on the collaborative efforts of the RDCs, including their contribution to implementing cross-sectoral RD&E strategies.

	Recommendation	Government response
Rural R&D Council Rec 4	The Australian Government should invest in conserving the genetic diversity of major socio-economically significant species and associated knowledge, in addition to continuing its support for international efforts to conserve germplasm, including in relation to biodiversity.	<p>Agreed</p> <p>The government is a significant contributor to international collaboration to preserve genetic diversity through, for example, the Global Strategy for Plant Conservation and the International Agricultural Research Centres of the Consultative Group on International Agricultural Research. In Australia, state and territory governments hold collections of plant genetic resources. The Australian Government will continue working with states and industry to consolidate collections and conserve the genetic diversity of major socioeconomically significant species. Steps have recently been taken to achieve this, including establishment of a National Grains Gene bank in Victoria to consolidate storage of genetic material for a range of grain species.</p>
Rural R&D Council Rec 5	The Australian Government should improve coordination of and collaboration in RD&E initiatives that inform the management of land, water, marine and other natural resources to achieve sustainable outcomes for current and future generations.	<p>Agreed</p> <p>The government recognises the need to promote coordination of and collaboration in programs that provide funding for rural RD&E, including in the component of the system referred to by the RRDC as 'related to rural'. The level of coordination of national RD&E effort can be improved, through existing mechanisms such as the National Primary Industries RD&E Framework and ARCom, as outlined in the response to Productivity Commission recommendation 11.2.</p>
Rural R&D Council Rec 6	The Australian Government should ensure that policy settings encourage the rural sector to participate actively in new business opportunities, including those related to bio-based production.	<p>Agreed</p> <p>The government will continue working to identify policy settings that may hinder participation of the rural sector in new business opportunities and to remove unnecessary barriers.</p>

	Recommendation	Government response
Rural R&D Council Rec 7	The Australian Government should apply its rural research funds in ways that value research excellence as well as research impact, and raise the profile of agriculture, fisheries and forestry within the broader research community.	<p>Agreed</p> <p>RDCs, universities and relevant government agencies will work on initiatives to maintain and improve the capacity of the rural research workforce. The initiatives outlined in the policy statement are designed to encourage students and researchers at all levels to undertake and continue a career path in rural research. These initiatives include:</p> <ul style="list-style-type: none"> • seeking to place greater emphasis on rural science in the Australian curriculum • using the Scientists in Schools program to raise interest in rural science at the primary school level • using overseas postgraduate scholarships and postdoctoral fellowships for Australian early career researchers to gain international experience.

	Recommendation	Government response
<p>Rural R&D Council Rec 8</p>	<p>The Australian Government should invest in initiatives to increase the rural sector’s utilisation of technical knowledge, better equipping it for global competitiveness, productivity, adaptability and sustainable development.</p>	<p>Agreed</p> <p>The new principles for the RDC model include an explicit requirement that the RDCs have in place suitably resourced processes to facilitate timely adoption of research results. The government acknowledges that many industries have well-established public or private extension arrangements that should not be replaced or duplicated. Rather, the government will include three requirements in the SFAs for all RDCs. They are that each RDC must:</p> <ul style="list-style-type: none"> • include in its strategic plan an extension plan which outlines the pathways to adoption for the R&D it conducts • consider the pathways to adoption in the planning and approval process for each research project • report on its extension activities. <p>DAFF will also ensure extension is considered in all R&D project plans funded within the portfolio by including these obligations as part of grant contracts, as applicable. DAFF will facilitate adoption of research outcomes by raising awareness among researchers funded through departmental programs and the RDCs of opportunities to access further government funding or advice on commercialising research outcomes.</p> <p>The government will continue working with other parties to the National Primary Industries RD&E Framework to ensure extension and adoption priorities are adequately understood and addressed during implementation of sectoral and cross-sectoral strategies under the framework. Information gathered through these strategies will aid extension-related data collection and performance measurement.</p>

	Recommendation	Government response
Rural R&D Council Rec 9	The Australian Government should build strategic international links and strengthen the capacity of existing networks to contribute to international efforts to address climate change and sustainably produce food, fibre and renewable energy.	Agreed Australia has well developed international linkages such as through ACIAR and contribution to the CGIAR system. A number of the initiatives outlined in the policy statement will contribute toward strengthening these links, including promotion of Australian research capacity to overseas investors (see response to recommendation 10), and scholarships and postdoctoral fellowships for Australian early career researchers to acquire international experience. The government will continue considering other ways in which strategic international links could be strengthened.
Rural R&D Council Rec 10	The Australian Government should encourage industry and researchers to strengthen links that increase the flow of international capital into Australia's rural RD&E system.	Agreed DAFF, in consultation with Austrade, RDCs and relevant research institutions, will develop a strategy to attract foreign investment into Australian rural R&D. The attraction of investment in this area will form part of a broader government strategy to attract foreign investment into Australian innovation.
Rural R&D Council Rec 11	To achieve the Council's vision for rural RD&E, the initial balance of investment across the rural RD&E system should be: <ul style="list-style-type: none"> • 40 per cent transformational investment for long-term outcomes • 30 per cent near-term adjustment for mid-term outcomes • 20 per cent capacity building in people • 10 per cent international linkage. 	Noted The government agrees there needs to be a balance of investment across the rural RD&E system; however, the government does not intend setting specific investment targets for either the overall rural R&D system or for individual entities. The new funding principles for the RDCs include an expectation that they should invest in a project portfolio that appropriately balances long-term and short-term, high-risk and low-risk, and strategic and adaptive research needs. The government will require RDCs to demonstrate a mix of investment projects and their associated risk profile and to report against this.

	Recommendation	Government response
Rural R&D Council Rec 12	The Australian Government should invest immediately in increased data collection to support the measurement of the rural RD&E system performance. This includes allocating resources to analyse data requirements and existing and new sources of data, and to communicate findings clearly. The first of a regular series of rural RD&E system reports should be prepared urgently using the Council’s proposed performance measurement and reporting framework.	<p>Agreed</p> <p>As outlined in response to Productivity Commission recommendation 11.1, the government will ask the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) to deliver three-yearly system-wide reports based on the performance measurement and reporting framework developed by the Rural Research and Development Council and refined by ABARES in its report, <i>Measuring and reporting trends relating to the performance of Australia’s rural RD&E system</i>.</p> <p>The government has also asked DAFF to consult stakeholders on how data collection could be cost-effectively improved, as outlined in response to the commission’s recommendation.</p>
Rural R&D Council Rec 13	The Australian Government should endorse the first National Strategic Rural R&D Investment Plan.	<p>Noted</p> <p>The government notes the recommendation and the fact that it has adopted major components of the Investment Plan recommendations.</p>

	Recommendation	Government response
Rural R&D Council Rec 14	The Australian Government should ensure adequate provision for the maintenance and implementation of the Plan by endorsing a key advisory body to guide more effective multi-sector cooperation and the prioritisation of Australian Government investment in RD&E for Australia's rural industries.	Agreed The government does not intend, at this time, establishing a new advisory body to guide multi-sector cooperation and prioritisation of Australian Government investment in RD&E. However, it recognises the need for greater cross-agency and cross-sector coordination of its investment in rural R&D. For this reason, ARCom will be asked to assess the level of coordination of Australian Government rural R&D investment, and advise whether any improvements can be made in terms of more coordinated funding arrangements and priority setting, opportunities for collaboration or increasing the focus on rural research. Following this assessment, the government will further consider future advisory arrangements for coordination and prioritisation of its investment into rural RD&E.

Glossary

ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
ACIAR	Australian Centre for International Agricultural Research
ARCom	Australian Research Committee
CRCs	Cooperative Research Centres
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFF	Department of Agriculture, Fisheries and Forestry
OECD	Organisation for Economic Co-operation and Development
PIERD Act	<i>Primary Industries and Energy Research and Development Act 1989</i>
R&D	research and development
RD&E	research, development and extension
RDC	rural R&D Corporation
SFAs	statutory funding agreements

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