

## **SUBMISSION TO THE PRODUCTIVITY COMMISSION REVIEW OF RURAL RESEARCH and DEVELOPMENT CORPORATIONS**

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The Australian Rural Research and Development Corporation (RDC) model has brought great value to many of our rural industries, regional areas and our country. The model is not busted, so I urge the federal government not to throw it out. There are significant areas for possible improvement to the model, so I welcome the federal government's initiative in requesting this review and report by the Productivity Commission(PC). My submission comprises some overall observations arising from my 33 years post university graduation involvement as a rural research practitioner and manager in 2 states, a commercial adviser to rural producers and producer groups, and as a project, program and general manager for activities funded by at least 5 of the RDC's. I will also make some comments in response to specific questions raised in the PC Issues Paper (March 2010).

### **Overall Observations/General Comments**

1. The fundamental question of "what is the rationale for investment of public funds in rural industry R&D?" is a valid one, and should be periodically revisited by the federal government. There will be smart economists (like Mullen and others referred to in the Issues Paper) whom I respect, who will have some chance of answering this question in an objective way. In my opinion, the rationale for such investment of public funds remains strong for the following reasons:
  - maintaining the international competitiveness of our rural industries through ongoing innovation is in the national interest.
  - the investment, and the outcomes of the activities partly funded by the investment, contributes significantly to the resilience of rural and regional communities, which is, and will continue to be, an important social and economic challenge for all levels of government in Australia.
  - much of the R&D funded has both direct and indirect outcomes which are beneficial for the sustenance of our natural resources. When one considers that rural industries are the primary land use on probably more than 60% of our Australian land mass, such outcomes are definitely in the national interest.
2. While the basic structure of Rural R&D remains as it always has ie part basic science, part applied science and part commercialization and adoption of innovation arising from the other two parts- there have been massive changes in the capacity of those different parts across Australia. In particular, we have seen a huge reduction in the funding and human capacity in state departments of agriculture. When I did an independent review of research capacity for one of the state departments about 7 or 8 years ago, they still had 28 research stations

located around the state. This was a reflection of very different times, and although each of the communities in which those stations were located staunchly defends the need for the stations to continue, most are now so severely under-resourced that they cannot make a contribution to their district or the industries they used to serve. Some of these stations had no scientific staff at the time of the review-one major centre which had over 20 scientists based there in the 1980's, has less than 5 now. One state department had 23 sheep and wool extension officers state wide in the 1980's-now 6 or 8. No doubt there are university groups and CSIRO institutions which have disappeared or that can quote similar reductions in staffing. These changes are regrettable but real and it means that industries and government need to plan and resource Rural R&D very differently now, than we did 20 years ago.

3. Contracting back to, and suitably resourcing a smaller number of R&D sites, possibly in the form of Centres of Excellence, is one obvious response to these contractions in resources for rural R&D from the institutions that traditionally supported it. This response has merit, but many of us are aware of redundant signs at entrances to various institutions that claimed or were announced with political fanfare as centres of excellence, but which have since withered. We need long term commitment of funding and resources (7 to 10 years minimum) to give such centres of excellence the chance to develop, attract good people, and get runs on the board. The CRC model has merit and should be continued-especially where there is good collaboration between industry RDC's, commercial industry players, and top scientists in CSIRO and/or universities. There must be precedents from other R&D sectors (eg in health) or other countries that we can learn from to improve our centres of excellence approach.
4. Investing in, and building human capacity, must continue to be a high priority for our national Rural R&D agenda. RDC's should be, if they are not already, obliged under their statutory funding agreements, to devote a suitable proportion(say minimum of 10 %) of their investments to post graduate training, to supporting participation in leadership programs like the Australian Rural Leadership Program and professional development programs like Nuffield Scholarships. The beneficiaries of these investments will not only help secure the ongoing R&D capacity of their industry, but also the leadership capacity of their industry-which in the end will be a major determinant of an industry's willingness and ability to embrace and apply the innovation arising from investments in R&D.
5. In addition to placing an expectation on the RDC's via the statutory funding agreements, that their R&D programs address national and public good R&D priorities, those statutory funding agreements should do the following (if they don't already):
  - set an agreed target for proportion of funding devoted to basic science(say, minimum of 20%)
  - require evidence of cross RDC collaboration
  - set an agreed target for proportion of funding devoted to human capacity building (see above point)
  - require conduct of formal evaluation of R&D outcomes according to standardized, best practice methodology, and reporting back of not only industry financial returns

from those outcomes, but also public good outcomes, recognizing the government contribution.

6. A much larger proportion of the investments in applied research and adoption activities should be planned jointly with producers and actually conducted under commercial conditions on “real farms”. This will bypass the many under-resourced research stations around Australia, and actually increase the relevance and rates of adoption of innovation outcomes. There are some excellent examples around Australia, particularly in the cropping sectors, of innovative farmer groups driving the agenda for applied research/demonstration and extension.

7. While most Australian Rural R&D levies are producer paid, there is growing recognition of the need to target some of the off-farm segments of the supply and processing chains to develop innovation for the benefit of the whole chain (from rural commodity producers right through to consumers of the end products). The meat processing sector is one exception—they contribute R&D levies which complement meat producer levies. While logistically complex, particularly where a significant proportion of the processing chain is located offshore, I believe the federal government should work with the RDC leaders to further pursue the capacity for processor levy collection and investment in off farm R&D, for the benefit of the whole chain.

### **Specific Comments on Issues/Questions Raised in the PC Issues Paper**

1. Pg 10 “How important are divergences between the point in the supply chain where the research is funded and conducted, and the point where most of the benefits of that research are realized?” I believe this is an important issue, on which light could be shed through a couple of commissioned case studies. For example, it would be beneficial to analyse the potential for productivity gain and/or cost reduction, and/or product value adding at various points in the supply chain for a sample of rural commodities that are substantially processed and consumed in the domestic market and others that are substantially processed and consumed offshore.
2. Pg 11 “Are there other features of the levy system, or any regulatory issues, that discourage private investment in rural R&D?” Since the majority of Australia’s 100,000 plus farmers are small scale, family operations, they must act collectively to enable useful, private investment in R&D. They will continue to depend on matching government funding to achieve the scale of investment required, and there are clear social, economic and environmental benefits from that joint investment to provide the rationale for part public funding.
3. Pg 11 “How important is it that government contributes to the cost of maintaining core rural research skills and infrastructure?” I have argued above that it is critical for government and industry to invest in human capital for R&D. The infrastructure needs are important too, but these needs are different now for, particularly, applied research and adoption activities. See comment earlier about engaging directly with farmers and conducting more applied research and extension activities on commercial farms.

4. Pg 11 “What importance should be placed on outcomes-based rationales for government funding support for rural R&D, such as.....; and fostering regional development?” All of the reasons given provide rationale for government investment in rural R&D, but I would like to re-emphasise the importance of this investment as a contributor to regional development. Assisting to maintain or restore viable rural and regional communities is, and will continue to be, one of the big challenges for all levels of government in Australia. Investment by government in Rural R&D has a proven return and benefit for regional areas.
5. Pg 11 “Should the level of public funding have any regard to government support for rural industries in other countries?” A watching brief is warranted, but ensure that the full picture in other countries is captured-including all forms of public subsidies for the rural sectors in many other countries.
6. Pg 13 Options for new models for Rural R&D funding. I would strongly oppose the option raised for diverting government matching funds from the RDC’s, and reallocating those funds to a new body or directly to CSIRO or universities. The other option raised, of making the RDC’s compete for the government funding, would be a possibility, although I would have some concerns about the makeup of a suitable decision making group who would decide on the allocation of investments across the competing RDC’s. I believe the current RDC model is workable, but can be improved through changes to statutory agreements as suggested in my overall observations/general comments section above.
7. Pg 16 Questions relating to the balance between value from Rural R&D investments accruing to either the specific industry levy payers or the wider community. As previously stated, I believe the benefits to the wider community from many projects are substantial, but perhaps this needs to be more clearly identified and reported through further development of the standardized best practice project evaluation methodologies. The statutory agreements with RDC’s could be changed to more specifically direct RDC’s to report project outcomes with broader community benefits more explicitly highlighted.
8. Pg 18 Comments on governance and RDC board functionality. There appears to be a serious need for investigation of the functioning of boards of some RDC’s, particularly the IOC’s. Although it may be difficult, under normal corporations law, for the government to dictate things such as the makeup and methods of appointments of directors to the IOC boards, it is crucial that there be a better balance on some boards between directors with industry (primarily producer) expertise and directors with more general board, business and governance skills. I see no reason why it would not be appropriate under a statutory agreement, that the government would insist on a government representative be appointed to all RDC boards, with full voting and participation rights. Perhaps the statutory agreements could also include quite clear directions about the skills profiles that must be present on the RDC board. Although I have some concerns about governance in some current RDC structures, I would not be supportive of one option (proposed on Pg 19 of the Issues Paper), that the government contribution to a particular industry’s R&D be managed separately, leaving the RDC to manage levy payer funds only.

9. Pg 20 “What are the benefits and costs of the combination within the IOCs of R&D responsibilities and other industry services?” As outlined in the issues paper, there are some difficulties for the boards and senior management of these IOCs, as a result of them assuming responsibility for marketing, promotion and industry representation roles. In my view, the benefits to their industries of having all these roles “under the one roof”, are significant and justify this type of development. However, if the IOCs are to effectively meet the expectations of their government investor (as defined in their statutory agreement), as well as their levy payer/shareholders’ expectations, this is an even stronger argument for insisting on boards with skills profiles much broader than just good producer expertise.
10. Pg 20 “Are there too many RDC’s and, if so, how might this number be reduced?” If their roles are to primarily or exclusively manage R&D, then I would argue that we could reduce numbers—for example by including all extensive grazing livestock industry R&D into one (replacing separate AWI and MLA) and possibly all extensive cropping industry R&D into one (replacing separate GRDC and CRDC). Where these organizations are developing functions to meet industry expectations in marketing and promotion, it is difficult to see amalgamation being feasible or acceptable.
11. Pgs 20,21 Various questions and suggestions regarding project evaluation. These are very important issues. The government, in consultation with RDC leaders, should continue to develop standardized methodology for ex post project evaluation. This methodology should incorporate clear calculation/estimation/description of “public benefits”, and require (through the statutory agreements) reporting of this to government as part of the ongoing justification of investment of government matching funds. The standardized evaluation methodology should also include follow up of initial project evaluations to see whether assumptions about the extent of industry adoption and level of benefits/costs of adoption, have in fact been realized. These evaluation processes will become more accurate as a consequence of more direct engagement of producers or processing operators as active partners in the R&D process, as I have advocated elsewhere in this submission.
12. Pg 23 “Are there significant opportunities for additional collaborative research effort across the RDCs?” I believe there have been some excellent examples of cross-RDC collaboration, such as the Land Water and Wool program involving AWI and Land and Water Australia. Another has been the Pastures Australia program involving GRDC, MLA, AWI, RIRDC and DRDC. The CRCs have had varied levels of success, but some have had excellent collaborative input from RDCs (for example AWI, MLA and AMPC involvement in the current Sheep CRC). If RDCs are not currently obliged under their statutory agreements to report to the federal government on the extent and benefits of their collaborative investments with other RDCs and CRCs—they should be.
13. Pgs 24,25 Improving levy arrangements. As argued elsewhere in my submission, there should definitely be concerted effort in attracting levy payment participation from processors of rural commodities.. Consideration could be given to the option raised in the issues paper of government paying a higher “matching” contribution

on R&D projects with demonstrable focus on wider community benefits, and a lower contribution to projects with a more exclusive industry focus. I would have some concern about the logistics of this being applied at an individual project level, but it could probably be negotiated between the RDC and the government annually at a program level through annual operating plans put forward to government by the RDCs under their statutory agreement.