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Submission to the Productivity Commission Inquiry into

Rural Research and Development Corporations

Thank you for the opportunity to contribute to the Productivity Commission's Inquiry into Rural Research and Development Corporations (RDCs). This submission is comparatively brief and provides a relatively high-level perspective on matters that are specific to or of particular importance to Australia's forest and wood products sector.

A3P and R&D

A3P is the national industry association representing the interests of the plantation-based wood products and paper manufacturing industry. A3P members employ more than 13,500 people in plantation management, sawmills, panel board, and paper manufacturing and specialty plantation products plants, mainly in rural and regional areas. Each year, A3P members create and sell products worth more than $4 billion, and produce more than 12 million cubic metres of logs, 3 million cubic metres of sawn timber, and more than 2 million tonnes of paper.

A3P members conduct research and development directly and indirectly, recognising its importance in helping them maintain and improve their competitiveness in a highly competitive international industry. Directly, making use of the R&D tax concession, A3P members carry out their own company-specific R&D — to varying degrees, given the wide diversity of the plantation growing and processing sector in scale, products and complexity.

This company-specific R&D is carried out to improve the companies' products and services and production and distribution processes, and much is conducted 'on the factory floor', as a process of 'continuous improvement' and with a particular focus on improvements that will be commercially viable.

A3P members also carry out R&D indirectly through making voluntary or compulsory funding contributions to other organisations, such as Southern Tree Breeders Association, Cooperative Research Centre for Forestry, and Forest and Wood Products Australia, the RDC to which companies contribute funds for industry-wide R&D — much of which is more strategic and basic than company-specific.

A number of leading companies in Australia's wood and paper industry are international, although they conduct R&D here to be better adapted to the Australian resource and to the Australian production and distribution environment and marketplace, as well as to improve their competitive efficiencies in the global market.

Context for this Inquiry

A3P observes that this Inquiry is the most recent in a list of inquiries and reviews of some or all aspects of the funding, management and conduct of rural R&D in Australia over recent years.

The overall impact of the findings and recommendations of the completed reviews on R&D policy and funding is far from clear (indeed, the Government has never responded to the 2007 Productivity Commission report, see below), and it is frustrating to witness the continued conduct of more reviews and strategy developments before the recent previous efforts have been completed or acted on.

The following reports, listed by Core (2009: *A Retrospective on Rural R&D in Australia*, p13ff), have addressed the current rural R&D framework since it was introduced in 1989 (not always exclusive of non-rural R&D).

- Industry Commission (1995). *Research and Development.*
- Corish, P. et al (2006). *Creating our Future: Agriculture and Food Policy for the Next Generation*. (Report by the Agriculture and Food Policy Reference Group).
- Productivity Commission (2007). *Public Support for Science and Innovation*.
- Cutler, T. et al (2008). Review of the National Innovation System, by an Expert Panel chaired by Dr Terry Cutler.

Building on these foundations, three broad activities are being carried on concurrently, which must inevitably have varying degrees of overlap. And these activities have already led to the production of further contributing reports:

- a National Strategic Rural R&D Investment Plan, being developed by the Rural Research ad Development Council, established in 2009 to advise the Minister for Agriculture, Fisheries and Forestry. Additional reports:
    - the 'retrospective' by Core (above) on the evolution of Australia's current rural R&D system;
    - a report by ABARE and BRS on the relationship between R&D and productivity growth in primary industries; and
    - a report by Frontier Economics on the international drivers of rural R&D.
- a National Primary Industries RD&E Framework, being developed (since June 2009) by the Primary Industries Ministerial Council (PIMC).
    - To date PIMC has endorsed RD&E strategies for the pork, wine, dairy, beef, sheepmeat, poultry, fish and aquaculture, and forest and wood products industries.
    - Other industries are progressively working on their strategies for PIMC endorsement.
- this Rural R&D Corporations Inquiry, being conducted by the Productivity Commission (PC) (commissioned in February 2010).
    - This has already led to the publication of the Issues Paper (March 2010).

Despite the preceding reviews and reports, this PC Inquiry has nonetheless been given very wide-ranging terms of reference. This is clearly reflected in the Issues Paper, which elicits discussion by posing approximately 150 questions under four main headings:

- Rationales for government funding support;
- Is the RDC model fundamentally sound?
- Funding level issues;

- Improving the RDC model.

Taking the Terms of Reference and the Issues Paper questions together, it is hard to avoid concluding that the Inquiry is expected to begin with a 'clean slate',.

A3P doesn't consider such fundamental scope and depth are warranted at this point. Drawing conclusions from much of the recent and current work in this field, the rationale for Commonwealth Government investment in rural R&D has been more than adequately established, and it has been demonstrated that the RDC system is basically sound.

A3P recommends that the Inquiry should be taking these matters as given, and should not embark on a theoretical analysis in an attempt to justify a new and different approach or model.

Rather, A3P recommends that the Inquiry examine and consider all relevant previous and current work as well as submissions, seeking to advise the Government only on those changes that emerge as necessary to improve on a system that is basically workable and effective.

Research, development and extension for the forest and wood products sector

A3P refers the Inquiry to the *RD&E Strategy for the Forest and Wood Products Sector* (2010), endorsed by PIMC as part of its National Primary Industries RD&E Framework, and summarised below. This strategy was compiled following stakeholder consultation, and provides a useful insight into the special characteristics of the forest and wood products sector and the drivers of its RD&E requirements and objectives.

RD&E needs in the forest and wood products sector can be considered in context of the factors that 'drive' the sector. The RD&E Strategy explains the following sector drivers in some detail.

- Competitiveness — especially competition with imported products; with substitute materials; and with other land uses for land and water resources;
- The changing nature of the forest resource — in particular, from native forest to plantations, and from public ownership to private ownership, and from short rotation hardwood pulpwood species to longer rotation species for sawlog production;
- Climate change — not only forestry's contribution to carbon capture and storage, but also the implications for forest productivity and adaptation;
- Realising and demonstrating sustainability — to satisfy changing community attitudes and to maintain a 'social licence' to operate; covering responsible use of forest resources, sustainable long-term forest management, and the environmental credentials of wood products;
- Expanding opportunities for wood products — especially greater use of wood biomass for electricity and fuel production and for diverse bioplastics, chemicals and pharmaceuticals.

The Strategy explains how forestry and wood production is differentiated from conventional agriculture, and how the sector's different industry structure and scale limits the flexibility to rationalise RD&E infrastructure.

It also presents analysis of the way the sector's RD&E is resourced, including the status and trends (regrettably, mostly adverse) in:

- the sources and quantum of funding;
- the capacity and structure of the RD&E providers for the sector — especially in universities, state government agencies, CSIRO, private companies, and cooperative

mechanisms (eg Cooperative Research Centres); the main user groups; and noting the ageing of research personnel, and the skewing of research focus towards subjects where matching funds can be more readily found;

- the mechanisms for national coordination — especially those under the aegis of the PIMC, as well as via the sector's own RDC, Forest and Wood Products Australia (FWPA), which prepared the Strategy;
- the winding back of State Government commitment, particularly in forestry extension (never, itself, as well resourced as other primary production sectors); and
- challenges facing the sector — especially noting the concern that RD&E capacity is in a perilous state, through resource cutbacks and dispersal of the research capacity (particularly by CSIRO).

The document presents a framework for a national RD&E strategy for the sector, underlying which is — "a vision of profitable, innovative, competitive and sustainable forest industries. Key areas where the Strategy will contribute to industry outcomes, which in turn will help achieve this vision, are:

- enhanced competitiveness of forest products vis-à-vis other materials based on performance and environmental footprint;
- sustainability measures that are scientifically robust, operationally feasible, easily understood and relevant to the community and broader user groups;
- capacity and capability for resource expansion and utilisation of new wood resources;
- adoption of improved forest management practices through a culture of continuous improvement and learning;
- a biosecure forest industry; and
- increased accessibility of information through a variety of mechanisms".

It concludes by proposing the establishment of a Forest and Wood Products RD&E Forum as a new coordinating body, comprising key funders, providers and users of forest and wood products RD&E.

More specific comments on RD&E and RDC issues

A detailed submission has been prepared by the Australian Farm Institute, on behalf of a range of industry organizations with both a direct and a strategic interest in rural RD&E policies in Australia, in particular to the extent that they affect productivity and profitability of businesses within the sectors they represent, including forestry and wood products.

Many of the arguments and points raised in that submission are common to diverse rural sectors in covering the Inquiry's Terms of Reference and Issues Paper. A3P supports the thrust and the arguments presented in that submission, and commends it to the Inquiry.

A3P would especially like to draw the Inquiry's attention to a number of points in AFI's representative submission — points that A3P believes warrant particular emphasis.

> "The role of rural RDCs in achieving that productivity growth cannot be exactly estimated, but there is no doubt that they have made a major contribution, and are continuing to do so. Their role has become even more important over recent years, as State Governments in particular reduce the level of support they are providing to rural R&D and related rural extension services." (Executive Summary)

Rural R&D policy implications

"…there cannot be a one-size-fits-all policy model available that can be applied across the entire rural sector with respect to research and development policy and structures." (p25)

"…rural businesses face a higher level of business risk than businesses in most other sectors of the economy, and this has implications when it comes to investment in or adoption of new technologies, a process that often involves taking on additional business risk." (p26)

"…underinvestment in rural R&D will almost certainly arise in the absence of government intervention, and the community will also be at a disadvantage, as public-good spillovers are an important outcome of successful R&D investment." (p27)

"It is … not conceivable that a single government agency would be able to secure the strong identification and engagement with rural producers that is currently the case with RDCs." (p27)

"Rural R&D corporations … provide a good model whereby industry and governments share in the cost of R&D, and also its benefits. Industry interaction with, and ultimately control over the resources available to R&D corporations (through levy votes) means the system is responsive to industry needs, and delivers research outcomes in a professional manner that benefits all industry participants, as well as the wider community. RDCs are able to attract and retain staff with specialist knowledge and experience in rural industries, and implement communication and extension strategies that vary depending on the nature of the sector they serve.

"It is difficult to envisage an alternate model that could achieve the same outcomes with the same or increased industry engagement and ownership." (p27)

The economic and policy rationale for Australian Government rural R&D investment

"The response by the Government to the Cutler review has reaffirmed Australian Government R&D policies that have been in place since the mid-1980s. Australian Government intervention in national R&D has involved three broad approaches. The first is the direct funding of scientific research through organizations such as the CSIRO. The second is through the provision of tax concessions to large businesses investing in R&D. The third is via joint government and industry investment in rural R&D, a policy implemented in recognition of the marked differences between the rural sector and other sectors of the economy." (p29)

"As the earlier data on the structure of the rural sector highlighted, few rural sector businesses are of sufficient scale to be able to invest in R&D, let alone at the level of investment that would make it viable for them to seek access to the R&D tax concession." (p29)

Section 3.1: Key rationale in support of public rural R&D investment selects six factors that require consideration in rural R&D policy formulation. These factors deserve the Inquiry's careful consideration. (pp30-38)

Policy implications

"Perhaps the most important issue in relation to rural R&D investment is the spillovers that arise, and which cannot be captured by an individual or an organization in isolation … This applies in particular to those [rural R&D activities] associated with natural resource management, and therefore the argument in favour of continued Government intervention and public investment remains very strong." (p38)

The importance of rural extension to innovation and productivity

"The rural extension system plays a critical role in encouraging the adoption of new technologies, and is therefore a fundamental element in terms of the success of a national rural R&D system. The withdrawal or downscaling of rural extension services by State Governments will impact on adoption rates and ultimately productivity growth in the rural sector, and appears to be happening in an ad hoc and politically-driven manner, rather than as a consequence of long-term planning and analysis of industry needs…

"A dilemma for RDCs … is that the more they assume responsibility for the extension of research outcomes to farm advisers and farmers, the more they give licence to State government agencies to withdraw from this role. However, if the RDCs fail to take on this role, the effectiveness of the R&D system will undoubtedly be jeopardized.

"Rather than allowing rural extension services to wither in an ad hoc manner, there is a need for industry (including RDCs) and Government to consider the best ways to ensure that rural extension does not become the weak link in the national rural R&D system, limiting future rural productivity growth." (p48)

R&D funding and rural productivity

"…productivity growth in the rural sector in Australia has been higher than that observed for most other sectors [except Communications], and considerably above the average observed for the entire economy…

"…the relative productivity performance of the Australian rural sector is comparable with the best performances observed internationally…

"These results provide good evidence that the rural R&D system in Australia has performed well. While the rural R&D system comprises a number of participants and not just the RDCs, the significant role the RDCs have in the system means that the evidence is that the current RDC model has been effective in improving the competitiveness of Australia's rural industries." (p62)

"…*reduced growth in productivity [internationally] observed during the past decade or two may be attributable in significant part to a slowdown in the rate of growth in spending on agricultural R&D a decade or two previously*. (Alston et al 2010)"

"[For Australia]…it means that it is likely (in the absence of a major change in rural R&D investment policies internationally) that international spill-ins are likely to slow, and Australia will need to rely on an even greater degree in the future on the success of the national rural R&D system, which is dependent to a large degree on the level of resources available to the system, and in particular to RDCs." (p62)

Funding arrangements of RDCs

"While there are arguments for and against compulsory R&D levies, there is strong support (as expressed in levy ballots) amongst rural producers for their continuation. This is particularly so given the industry-good outcomes generated by levy-funded R&D." (p66)

"In the absence of compulsory R&D levies, the large industry and public-good spillovers arising from rural R&D would create major 'free rider' inequities, and create disincentives to R&D investment which would disadvantage the entire sector over the longer term." (p66)

More specific comments on issues particular to the forest and wood products sector

A3P wishes to highlight several RD&E and RDC issues of particular relevance to the forest and wood products sector.

Need for RD&E in the sector within Australia

Unlike other Australian rural industries, the forest industry comprises not only numerous large and small private growers and processors but also several very substantial public (State Government) forest growers and managers. The whole industry recognises the need for Australia to maintain a basic core R&D capacity in understanding and managing trees and forests and in understanding and developing diverse wood-based products, including numerous emerging energy, chemical and plastic products for use in a future carbon-constrained world.

The native and plantation forests are located in Australia, most of the forest products are being used in Australia, and there is a drive to strengthen our own domestic capacity for processing forest products. Thus, there is reason to have domestic R&D capacity, even if it is only to evaluate and adapt work done overseas for Australia's circumstances. Such capacity also offers a substantial 'public good' derived from — a large area of publicly-owned forest, and significant environmental (including greenhouse abatement) and social/community benefit delivered by appropriate management of forests and use of wood products.

Although private plantation ownership and the wood processing sector is dominated by multinational companies, all with R&D programs and activities in other countries, there is no reason for Australia's R&D policy to become bound only by the priorities of overseas parent companies.

Forestry and its R&D require long-term investment horizons

Whether public or private, forestry is a long-term enterprise, demanding decades-long investment horizons. That private forestry investment confronts market failure is easily demonstrated, also evidenced by there being some form of plantation-supportive government policy in every country with an active plantation industry.

Investment in forestry and wood products RD&E suffers similarly from its own form of market failure, exacerbated by the alternately concentrated or dispersed structures of different segments of the industry, and the large potential for free-riding on the diverse public benefits that forests provide. Continued government investment in forest and wood products RD&E should not require repeated justification.

Sector capacity in RD&E is in decline

Over decades, forest and wood products RD&E has served the sector well, with many examples of world-leading technological and productivity advances directly attributable to Australian research. Despite these achievements and their contribution to productivity and profitability, there is clear evidence that the sector's RDE capacity and effort is in decline.

R&D capacity is becoming increasingly dispersed and is suffering an ageing researcher demographic in some disciplines, and RD&E providers have been for some time 'restructuring' and 'redirecting' their resources. Examples include:

- State forestry commissions/agencies have had their RD&E capacities dramatically reduced by various 'corporatising', restructuring and outsourcing decisions.
- CSIRO world-renowned research capability in forestry and wood science has suffered several cuts over nearly two decades, each successive 'reorganisation' adding to the loss of capacity and morale. Most recently, CSIRO has dispersed its

forestry researchers to other divisions, and has this year dismantled its wood and paper products scientific capability and technological infrastructure.

- University education and research capacity has been greatly reduced over the past decade.
- Many Australian companies that had R&D capacity are now owned by multinationals, which have rationalised their R&D, and in most instances moved much of the R&D to their home countries/regions.

If long-term productivity and profitability of the Australian forest and wood products sector is not to suffer unnecessarily, this declining trend must be reversed. A strong, well-resourced, sector-focused RDC can play an important role in that reversal.

FWPA is becoming the 'core' player

The Forest and Wood Products R&D Corporation (FWPRDC) was set up in 1994. In the context of the previous subsection above, it can be seen that, at that time and for some period afterwards, the FWPRDC was a relatively minor, generic, pan-sectoral player in a bigger and stronger national forest and wood products R&D framework.

In contrast with FWPRDC's early years, the transformed FWPRDC, now an 'industry-owned company', Forest and Wood Products Australia (FWPA), almost by default, is becoming the core of a diminishing national forest and wood products R&D framework.

Generic marketing and promotion is combining well with R&D

The creation of FWPA resulted from a broad agreement across the sector (both public and private) to embark on an ongoing national wood products industry-generic marketing program to promote the benefits and advantages of wood-based products. The compulsory levy system accessible under the PIERD Act was the obvious way to ensure such a program could be adequately funded on a continuous basis over an extended period.

A3P was the major driving force behind the move from FWPRDC to the new structure needed for FWPA, and is confident that RD&E and marketing /promotion can be effectively combined under this arrangement. FWPA is now two years old. The early signs of success are positive, and A3P sees no reason for the arrangement to be disrupted or interfered with at this point.

I would welcome any opportunity to have further discussions with the Inquiry as and when convenient, and look forward to reviewing and commenting on the draft report in due course. If you have any questions about this submission please do not hesitate to contact me.

Yours sincerely

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