Chapter 1

Introduction and background

1.1 On 2 September 2014, the following matters were referred to the Senate Rural and Regional Affairs and Transport References Committee (committee) for inquiry and report by 24 November 2014:

> The industry structures and systems governing the imposition of and disbursement of marketing and research and development (R&D) levies in the agricultural sector, with particular reference to:
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> a. an audit of reports, inquiries and reviews relevant to this inquiry;
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> b. the basis on which levies are imposed, collected and used;
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> c. competing pressures for finite R&D funds;
>
> d. the opportunities levy payers have to influence the investment of the levies;
>
> e. the opportunities levy payers have to approve and reapprove the imposition of levies;
>
> f. the transformation of R&D and marketing into increased returns at the farm gate, including the effectiveness of extension systems;
>
> g. collaboration on research to benefit multiple industry and research sectors;
>
> h. industry governance arrangements, consultation and reporting frameworks; and
>
> i. any other related matter.

1.2 On 2 October 2014, the Senate granted an extension of time to report. The committee was required to report by 30 June 2015.

Conduct of the inquiry

1.3 The inquiry was advertised in *The Australian* and on the committee webpage. The committee also wrote to government departments, organisations and individuals to invite submissions. Details of the inquiry and associated documents are available on the committee's webpage.

1.4 The committee received 150 public and 7 confidential submissions which are listed at Appendix 1. The public submissions are also published on the committee's webpage.

1.5 The committee held public hearings in Canberra on 28 November 2014, 5 February 2015 and 15 May 2015, Sydney and Melbourne on 3 and 4 February 2015 respectively and in Perth on 20 February 2015. A list of witnesses who appeared at the hearings is at Appendix 2.

Acknowledgement

1.6 The committee acknowledges the organisations and individuals that made contributions to the inquiry through submissions and appearances at the hearings.

Levies in the agricultural sector

1.7 The first compulsory levy was introduced in 1936 and there have been substantial changes to the system since that time.[1] Levies are now imposed on a range of rural commodities and products. They are collected by the Department of Agriculture (department) and appropriated to the relevant Research and Development Corporation (RDC), less the cost of levy collection, as well as to Animal Health Australia (AHA), Plant Health Australia (PHA) and the National Residue Survey (NRS), to fund activities that benefit levy paying industries.[2]

1.8 In 2013–14 there were 99 statutory levies, representing 74 commodities paid to 19 levy recipient bodies (reduced to 18 from 1 July 2014). In that year, 50,531 returns were processed resulting in $467 million contributed by Australian primary producers. These funds, along with Australian Government matching eligible R&D funds amounting to $238 million, were provided to the levy recipient bodies.[3]

1.9 As the levy recipient bodies, RDCs derive the majority of their funding from statutory levies. RDCs facilitate and fund scientific research for Australian rural industries. RDCs can either be statutory bodies (statutory RDCs) established by government under the *Primary Industries Research and Development Act 1989* (PIRD Act), or alternatively industry-owned corporations (industry-owned RDC) which are companies (usually limited by guarantee) declared as industry service bodies under specific legislation. There are currently 15 RDCs, five of which are statutory bodies governed by the PIRD Act. Following a review of Horticulture Australia's operations under the *Horticulture Marketing and Research and Development Services Act 2000*, a new body, Horticulture Innovation Australia Ltd (HIAL) was established to serve as

1 Mr Matthew Koval, Department of Agriculture, *Committee Hansard*, 28 November 2014, p. 1.

2 Department of Agriculture, Levies explained, http://www.agriculture.gov.au/ag-farm-food/levies/publications/levies_explained?wasRedirectedByModule=true (accessed 10 March 2015).

3 Department of Agriculture, *Report to Levies Stakeholders 2013–14*, 30 June 2014, p. 5, http://www.agriculture.gov.au/SiteCollectionDocuments/ag-food/levies/documentsandreports/report-to-stakeholders-2013-14.pdf (accessed 10 March 2015).

a grower-owned entity.[4] The remaining RDCs are industry-owned bodies, created from former statutory RDCs.[5]

1.10 There are structural differences between RDCs, as each industry has its own set of characteristics such as geographical spread, culture, and intensity of production, which contribute to and influence the specific governance structure of their RDC. Evidence suggested that governance structures have evolved through industry adaptation as well as through changes to statutory authorities.[6]

1.11 The PIRD Act sets out arrangements for the establishment of statutory RDCs and the preferred structure for the administration of R&D program funds. It also sets out the reporting and accountability requirements for statutory RDCs. In addition, the governance arrangements of statutory RDCs are set out in the *Public Governance, Performance and Accountability Act 2013* (PGPA Act). Both acts establish the RDC's relationship with government. The PIRD Act also establishes the relationship with the industry representative organisations and with the respective industry. The five statutory RDCs in the agricultural sector include:

- Australian Grape and Wine Authority (AGWA);[7]
- Cotton Research and Development Corporation (CRDC);
- Fisheries Research and Development Corporation (FRDC);
- Grains Research and Development Corporation (GRDC); and
- Rural Industries Research and Development Corporation (RIRDC).[8]

1.12 Statutory RDCs are Australian Government entities, with directors appointed by the Minister for Agriculture (minister), and based on recommendations from a selection committee. These RDCs are overseen by the minister with their respective boards accountable to the minister for their performance.[9] Following legislative amendment passed in late 2013, statutory RDCs can provide marketing services where industry requests such services and raises a marketing levy.[10]

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4 Horticulture Innovation Australia Ltd, About, http://www.horticulture.com.au/about/ (accessed 9 April 2015).

5 Explanatory Memorandum, Rural Research and Development Legislation Amendment Bill 2014, p. 2.

6 Victorian Farmers Federation, *Submission 85*, p. [2].

7 AGWA is a Commonwealth statutory authority established under the *Australian Grape and Wine Authority Act 2013* that commenced on 1 July 2014.

8 RIRDC undertakes RD&E for over 60 different industries which range in size and maturity from new, developing and mature crops and animal products such as quinoa and tea tree oil through to rice and chicken meat. Rural Industries Research and Development Organisation, Submission 89, p. 1.

9 Department of Agriculture, *Submission 33*, p. 5.

10 Department of Agriculture, *Submission 33*, p. 5.

1.13 The industry-owned RDCs or industry-owned companies (OICs) are declared by the minister as industry service bodies under industry-specific legislation. They are established under, and must comply with, the provisions of the *Corporations Act 2001* (Corporations Act) which sets out the obligations of companies and their boards of directors.[11] Industry-owned RDCs are therefore independent corporate entities with expertise-based boards. Their accountability framework is set out in the corporation's statutory funding agreement (SFA) with the department. OIC boards are elected by members or appointed in accordance with their constitution and accountable to the minister through their industry SFAs.[12]

1.14 According to the Council of Rural Research & Development Corporations (CRRDC), OICs were formed in response to an industry desire to have more control over their affairs, increased flexibility and industry representation.[13] One of the key structural differences between industry-owned RDCs compared to statutory RDCs is that the former have members whereas the latter do not.[14]

1.15 Both the enabling legislation and SFAs prevent OICs from using levy or matching government funds to engage in agri-political or industry advocacy activities. Australian Pork Limited (APL) is the exception as it is the only RDC that incorporates strategic policy development as well as the traditional RDC functions of marketing and research and development.[15]

Diagram 1.1: Industry-owned Research & Development Corporations

Industry-owned RDC	Industry-specific legislation
Australian Egg Corporation Limited (AECL)	*Egg Industry Service Provision Act 2002*
Australian Livestock Export Corporation Limited (LiveCorp)[16]	*Australian Meat and Livestock Industry Act 1997*
Australian Meat Processor Corporation (AMPC)	*Australian Meat and Livestock Industry Act 1997*

11 Department of Agriculture, Research and Development Corporations, http://www.agriculture.gov.au/ag-farm-food/innovation/research_and_development_corporations_and_companies (accessed 15 March 2015).

12 Department of Agriculture, *Submission 33*, p. 6.

13 Council of Rural Research & Development Corporations, The Rural Research and Development Funding Model, http://www.ruralrdc.com.au/Page/About/About.aspx (accessed 17 March 2015).

14 Mr John Harvey, Grains Research and Development Corporation, *Committee Hansard*, 28 November 2014, p. 43.

15 Australian Pork Limited, *Submission 31*, p. 3.

16 Livecorp only receives the funds collected under legislation from the industry. It does not receive matching funds from the government. Australian Livestock Exporters' Council, *Submission 74*, p. 7.

Australian Pork Limited (APL)	*Pig Industry Act 2001*
Australian Wool Innovation Limited (AWI)	*Wool Services Privatisation Act 2000*
Dairy Australia Limited (DA)	*Dairy Product Act 1986*
Forest and Wood Products Australia (FWPA)	*Forestry Research and Development and Marketing Act 2007*
Meat and Livestock Australia (MLA)	*Australian Meat and Livestock Industry Act 1997*
Sugar Research Australia (SRA)	*Sugar Research and Development Services Act 2013*

Recent reports and reviews into the agricultural levies system

1.16 In June 2011, two reports were released on the R&D system. The Productivity Commission (PC) inquiry into the rural RDCs reviewed the RDC model and considered its overall effectiveness, while the Rural Research and Development Council (RRDC) National Strategic Rural R&D Investment Plan reviewed the rural research, development and extension system in Australia.

1.17 In its preliminary response to the PC report of June 2011, the Australian Government stated that it would not adopt the commission's recommendation to reduce the gross value of production gap on matching funding to RDCs. Further, the Australian Government's 2012 Rural Research and Development Policy Statement served as a response to the PC and RRDC reviews.[17] The statement identified a number of changes designed to increase accountability and transparency in the RDC model, including the introduction of SFAs for statutory RDCs.[18]

1.18 The statement recognised that combining R&D and marketing functions in one organisation would provide for both financial and operational synergies.[19] It recommended that statutory RDCs be allowed to undertake marketing, where requested by industry.[20] The consequent Rural Research and Development Legislation Amendment Bill 2013 (R&D bill) and companion bills, the Primary Industries (Excise) Levies Amendment Bill 2013 and Primary Industries (Customs) Charges Amendment Bill 2013, sought to implement commitments made in the policy statement that require legislative change.[21]

17 Australian Government, *Rural Research and Development Policy Statement*, July 2012, p. 2.

18 Australian Government, *Rural Research and Development Policy Statement*, July 2012, p. 2. The funding agreement for statutory RDCs is covered under the PIERD Act and regulations.

19 Australian Government, *Rural Research and Development Policy Statement*, July 2012, p. 3.

20 Australian Government, *Rural Research and Development Policy Statement*, July 2012, p. 3.

21 Explanatory Memorandum, Rural Research and Development Legislation Amendment Bill 2013, p. 3.

1.19 Consideration of the package of the three bills lapsed at the end of Parliament on 12 November 2013. On 20 November 2013, the bills package was reintroduced into the 44th Parliament with minor changes and received Royal Assent on 13 December 2013.[22]

1.20 The *Rural Research and Development Legislation Amendment Act 2013* amended the PIRD Act to allow statutory R&D corporations to undertake marketing activities – provided that the relevant funding levy in respect of the corporation included a marketing component. However, government matching funding would not be used for marketing, only R&D and extension services.[23]

1.21 Therefore, while some RDCs such as Grains Research and Development Corporation (GRDC) coordinate and fund R&D, others including Australian Wool Innovation (AWI) also serve as the marketing body for their respective industry.[24] APL is a unique RDC as it engages in R&D and marketing as well as serving as the pork industry representative.[25]

1.22 Other measures introduced under the 2013 legislation included:

- provision for government matching funding for voluntary contributions to all RDCs to encourage the private sector to invest in rural R&D;
- more efficient statutory RDC director selection processes;
- funding agreements for statutory RDCs to drive performance improvements and increase transparency in the delivery of R&D services;
- individual fisheries industry levies to be collected and matched subject to a cap based on the gross value of production of that industry; and
- minor amendments to improve consistency in governance between RDCs and simplify governance arrangements.[26]

1.23 The committee also notes its own previous inquiry and report into *Industry structures and systems governing levies on grass-fed cattle* which was tabled in the Senate on 9 September 2014. The committee report detailed the cattle transaction levy structure and focused on issues of accountability, transparency and opportunities for

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22 Bills Digest No. 13, 2013–14, Rural Research and Development Legislation Amendment Bill 2013 [and] Primary Industries (Customs) Charges Amendment Bill 2013 [and] Primary Industries (Excise) Levies Amendment Bill 2013, 26 November 2013, p. 3.

23 Explanatory Memorandum, Rural Research and Development Legislation Amendment Bill 2013, p. 3.

24 Mr John Harvey, Grains Research and Development Corporation, *Committee Hansard*, 28 November 2014, p. 41 and Australian Wool Innovation, *Submission 123*, p. 3.

25 Ms Deb Kerr, Australian Pork Limited, *Committee Hansard*, 28 November 2014, p. 37.

26 Explanatory Memorandum, Rural Research and Development Legislation Amendment Bill 2013, p. 2.

grass-fed cattle levy payers to influence the investment of the levy. The report foreword stated the following on these matters:

> In light of the substantial changes that have taken place to the industry since the current systems were put in place, the committee has identified in this report a series of gaps and flaws within the existing system. These shortcomings require structural reforms that go well beyond MLA's announced changes. In detailing the mechanisms available to levy payers to influence the quantum and investment of the levy, the committee has raised serious questions about accountability and transparency in relation to the both the current levy system and red meat industry structures. Issues of contestability, transparency and efficacy within the red meat industry structures and levy system has led the committee to the conclusion that serious reform is required to ensure the future viability of the Australian cattle industry.[27]

Market failure

1.24 The agricultural R&D system is predicated on the concept that there is market failure. Market failure was defined by witnesses as the inability of a single business, a single producer or grower, to invest and get an adequate return. That means that individual producers have no incentive to invest in the development of new varieties, new methods or new systems, because they cannot achieve an adequate return operating on their own.[28] To this end, RDCs provide a mechanism for industry to invest collectively in R&D.

1.25 Any submission to government requesting that a levy be struck or amended must define the market failure and how the introduction of a levy system would address that market failure.[29]

1.26 Evidence to the committee highlighted that the Australian agricultural sector largely comprises a wide diversity of small family businesses which have a low capacity to individually conduct or make major investment into industry-specific R&D.[30] In fact, the structure of the agriculture sector is characterised by the presence of many individual producers/providers who feed into a broader market of consumption. Australian Bureau of Statistics figures suggest that approximately 99

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27 Senate Rural and Regional Affairs and Transport References Committee, *Industry structures and systems governing levies on grass-fed cattle*, foreword, September 2014.

28 Mr Tony Mahar, National Farmers' Federation, *Committee Hansard*, 5 February 2015, p. 4.

29 Mr Matthew Koval, Department of Agriculture, *Committee Hansard*, 28 November 2014, p. 9.

30 According to the Australian Dairy Industry Council, 97 per cent of Australia's dairy farms are family owned. Mr Noel Campbell, Australian Dairy Industry Council, *Committee Hansard*, 4 February 2015, p. 35; Mr Robert Prince, Nursery and Garden Industry Australia, *Committee Hansard*, 3 February 2015, p. 12; Mr Gregory Seymour, Australian Mushroom Growers Association, *Committee Hansard*, 3 February 2015, p. 37 and Mr Matt Brand, NSW Farmers' Association, *Committee Hansard*, 3 February 2015, p. 67.

per cent of the 115,000 farm businesses in Australia are family owned and operated.[31] As such, there is little to no incentive for individual producers to contribute to strategies that provide dividends to whole-of-industry.[32]

1.27 The department noted that there is little incentive for individual private investment because it is difficult for a private investor to keep research benefits to themselves, and to stop people who did not financially contribute to the research from benefiting from it (otherwise known as 'free riding').[33] The department argued that this market failure creates a case for government involvement in rural R&D and for the levy system. To this end, the Australian Government contributes matching R&D funding of industry levies generally up to 0.5 per cent of the industry's gross value of production.[34]

1.28 In terms of market failure in relation to the marketing levy, APL explained that an individual producer has only limited capability to market a pork product.[35] It suggested that market failure occurs where individual producers cannot market the pork product on their own.[36] Industry-specific marketing activities are undertaken for the benefit the industry as a whole and are generic in nature. Ms Deb Kerr, General Manager, Policy, APL continued:

> So it is around what the industry collectively can do to improve the profitability of our pork producers through campaigns such as 'Put some more pork on' ads. Can individual producers do that on their own? They might be able to do it in a limited fashion with some of their own money, but most farmers do not have a marketing budget. If they are selling pork to a processor or through the supply chain, they are less removed from the marketing end of the business. It is only those who direct market to consumers who would be marketing themselves. The marketing levy itself is a generic levy that looks at the whole of industry and the benefits to the whole of industry.[37]

1.29 The point was made that, as many industries within the agricultural sector are engaged in an international market with international competitors, it was fundamental that industries collectively develop viable programs to allow Australian farmers to be internationally competitive.[38]

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31 National Farmers' Federation, *Submission 143*, p. 7.

32 NSW Farmers' Association, *Submission 140*, p. 6.

33 Department of Agriculture, *Submission 33*, p. v.

34 Department of Agriculture, *Submission 33*, p. v.

35 Ms Deb Kerr, Australian Pork Limited, *Committee Hansard*, 28 November 2014, p. 38.

36 Ms Deb Kerr, Australian Pork Limited, *Committee Hansard*, 28 November 2014, p. 38.

37 Ms Deb Kerr, Australian Pork Limited, *Committee Hansard*, 28 November 2014, p. 38.

38 Mr Noel Campbell, Australian Dairy Industry Council, *Committee Hansard*, 4 February 2015, p. 35.

Context of the inquiry

1.30 The inquiry was initiated at a time of significant change to Australian agriculture and in particular, the operating environment. As the Australian Farm Institute (AFI) explained:

> With the progressive freeing up of global agricultural trade, new competition has emerged in international agricultural markets, making it more important than ever that the Australian agriculture sector optimises efforts to increase productivity and hence international competitiveness.[39]

1.31 Across agriculture, industries are concentrating with fewer participants in all sectors compared to 20 years ago.[40] In the grains sector, as a case in point, the number of grain growers has almost halved in Australia in the last ten years from 40,000 to 21,000.[41] There are 50 per cent fewer dairy farmers nationally when compared to 1990. In the Western Australian horticulture sector, one or two growers dominate production of many crops.[42] Similarly, estimates suggest that 20 per cent of citrus growers account for nearly 90 per cent of production. In 1997, 50 per cent of citrus producers accounted for only 2 per cent of production.[43]

1.32 While many industries are consolidating, there remains considerable variability in the commodities across the agricultural sector, which not only includes food and fibre production but also foliage.[44] Each industry and respective commodity has its own set of own unique components – geographical spread, industry culture, intensity of production and the extent of concentration which influences both how it operates and the most appropriate levy system and supporting representative structure.[45] In light of this divergence, one of the central challenges for RDCs is to ensure flexibility in R&D investment to target the requirements of all producers. This is particularly challenging in sectors such as the pork industry which has a long tail effect. Of the country's 1900 pig producers, around 700 hold fewer than eight pigs.[46]

1.33 Evidence to the committee suggested that a combination of increased concentration of agricultural industries and the emergence of large-scale growers has led to greater challenges for RDCs in meeting the R&D needs of all growers – large

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39 Australian Farm Institute, *Submission 129*, Executive Summary.

40 Dr Graeme Robertson, *Submission 122*, p. 4.

41 Marsden Jacob Associates, *Grain Research and Development Corporation: Independent Strategic Governance Review: Final Report*, July 2014, pp 5 & 40.

42 Dr Graeme Robertson, *Submission 122*, p. 2.

43 Citrus Australia Ltd, *Submission 126*, p. [1].

44 Mr Robert Prince, Nursery and Garden Industry Australia, *Committee Hansard*, 3 February 2015, p. 8.

45 Mr David Jochinke, Victorian Farmers Federation, *Committee Hansard*, 4 February 2015, p. 20.

46 Ms Deb Kerr, Australian Pork Limited, *Committee Hansard*, 28 November 2014, p. 32.

and small. It has also contributed to rising discontent amongst industries with larger growers who have formed the view that they can invest their levies to greater effect within their own businesses.[47] This dynamic highlighted an underlying question, which underpinned much of the debate in relation to agricultural levies. That is, whether producers should have a say in levy decisions that is proportionate to their production/levy contribution.

1.34 The fact that characteristics of agricultural industries differ considerably also impacts the continuity of levy returns. In some industries and across the horticulture sector, growers dip in and out of production depending on the opportunities available.[48] This is also the case for the predominantly family-based operators in the Australian feedlot industry.[49] The Australian Lot Feeders' Association (ALFA) explained:

> Around 98 per cent of Australia's 400 accredited feedlots are owned and managed by Australian families. The vast majority are small operators which are vertically integrated with mixed broadacre grazing and cropping operations whilst a small number are vertically integrated with the processing sector.[50]

1.35 Evidence to the committee indicated that productivity growth in the Australian agricultural sector remained largely static over the last decade despite agricultural productivity growth amongst major competitors such as Canada, the United States, Brazil and New Zealand.[51] Yet, while there are a number of varying factors that contribute to agricultural productivity growth, sustained investment in R&D is recognised by some submitters as a critical factor.[52] The view was put that with annual productivity gains in the main agricultural commodities such as grains remaining flat since 2000, there was greater need for major investment in RD&E as part of renewed growth rather than less.[53]

Declining role of government in RD&E

1.36 Some submitters to the inquiry argued that RDCs have played an increasingly important role in funding agricultural R&D in the face of declining levels of investment by state governments and the Commonwealth (through CSIRO and

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47 Dr Graeme Robertson, *Submission 122*, p. 2.

48 Mr Jonathon Eccles, Raspberries and Blackberries Australia, *Committee Hansard*, 3 February 2014, p. 51.

49 Mr Dougal Gordon, Australian Lot Feeders' Association, *Committee Hansard*, 3 February 2015, p. 74.

50 Australian Lot Feeders' Association, *Submission 29*, pp 3–4.

51 Mr Tony Mahar, National Farmers' Federation, *Committee Hansard*, 5 February 2015, p. 1.

52 Australian Farm Institute, *Submission 129*, Executive Summary and Mr Tony Mahar, National Farmers' Federation, *Committee Hansard*, 5 February 2015, p. 1.

53 Ag Institute Australia, *Submission 43*, p. 3.

universities), particularly in relation to agricultural researchers, infrastructure and extension.[54] Recent estimates indicate that public investment in agricultural RD&E in Australia has been static for approximately two decades with declines in the rate of gain in agricultural productivity observed as a result.[55] Research has also become more internationalised and private companies have become significant providers of R&D.[56] Evidence from GRDC in this regard suggested that only two per cent of grains research is conducted in Australia while the remaining 98 per cent conducted overseas is increasingly being carried out by the private sector.[57]

1.37 According to evidence before the committee, R&D costs have risen considerably, exacerbated by the associated decline in co-funding by traditional research providers such as state government departments. As a case in point, Onions Australia noted that the capacity of the onion R&D levy to address all industry priorities had been significantly eroded over the last few years.[58]

1.38 Evidence suggested that state government share of total agricultural R&D funding declined from 53 per cent in 1995 to 38 per cent in 2007.[59] AFI found that, while difficult to quantify in absolute terms, there was reasonable evidence that government R&D agencies such as the CSIRO had reduced the real level of resources available for agriculture-related R&D. As a case in point, AFI suggested that from 2007 to 2012, there had been a 22 per cent decrease in the number of (public sector) personnel involved in grains extension.[60]

1.39 The Ag Institute Australia (AIA) noted that one of the ramifications of reduced state investment in RD&E was a reduction in capacity and service with respect to R&D in rural regions.[61]

1.40 However, other consequences of the declining role of government in RD&E were also recognised. According to the Marsden Jacob report on GRDC, while

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54 Australian Farm Institute, *Submission 129*, Executive Summary; Mr William Hamilton, Ag Institute Australia, *Committee Hansard*, 3 February 2015, p. 15; Mr Tony Mahar, National Farmers' Federation, *Committee Hansard*, 5 February 2015, p. 1; Ag Institute Australia, *Submission 43*, p. 5; Cotton Australia, *Submission 131*, p. 5 and Queensland Dairyfarmers' Organisation, *Submission 13*, p. 2 and Dr Grahame Robertson, *Submission 122*, p. 6.

55 Mr Warren Hunt, *Submission 1*, Attachment 1, p. 130.

56 Marsden Jacob Associates, *Grain Research and Development Corporation: Independent Strategic Governance Review: Final Report*, July 2014, pp 5 & 40.

57 Mr John Harvey, Grains Research and Development Corporation, *Committee Hansard*, 15 May 2015, p. 10.

58 Onions Australia, *Submission 5*, p. 2.

59 Mullen 2010 cited in Australian Farm Institute, *Submission 129*, p. 23.

60 Australian Farm Institute, Optimising future extension systems in the Australian grains industry, 2013.

61 Mr William Hamilton, Ag Institute Australia, *Committee Hansard*, 3 February 2015, p. 15.

private-sector extension work is increasing, it is extremely difficult to attract qualified personnel in light of the withdrawal of state governments and consequent lack of a training ground and career path for specialist extension providers.[62]

1.41 Another consequence of the declining role of state government in RD&E recognised in evidence was the need to ensure that RDC research is effectively communicated to producers. Evidence before the committee indicated that publicly-funded extension declined from 24 per cent of total public agricultural RD&E in 1952–53 to around 19 per cent in 2006–07.[63] The ACIL Allen report into the horticultural industry noted in this regard that there was a gap in translating high return R&D investments into farm gate adoption and R&D extension. The report concluded that this performance gap limited the ability of investments to produce tangible benefits for growers and the horticulture industry.[64] It was also noted in evidence that a direct linkage between levy payers and researchers needs to be upheld.[65] According to Mr Paul McKenzie, some scientists reported minimal contact with farmers and complained of a disproportionate amount of time complying with administrative tasks.[66] Dr Lindsay Campbell explained that traditionally, the extension component of R&D in Australia had largely been achieved through state and territory agricultural departments. With the curtailment of state funding for this activity, the gap had only been partly closed by private sector consultants with university researchers not funded to undertake such activities.[67]

1.42 These developments and their consequences are considered throughout this report.

R&D contribution to agricultural productivity

1.43 Some evidence to the committee suggested that agricultural RD&E and marketing activities carried out by levy-funded organisations on behalf of farmers and the Australian Government have been fundamentally important to the growth of the Australian agricultural sector over the last 25 years, particularly in the face of declining state government support for such activities.[68]

1.44 AIA argued that without productivity gains, Australian agriculture would be unable to compete effectively in international markets. It made the point that RD&E is

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62 Marsden Jacob Associates, *Grain Research and Development Corporation: Independent Strategic Governance Review: Final Report*, July 2014, p. 23.

63 ABARES 2011 cited in Grain Growers Ltd, *Submission 36*, p. 13.

64 ACIL Allen Consulting, *Better Value for Growers – A future for HAL:* Independent Review of HAL and Horticulture Levy System, May 2014, p. 28.

65 NSW Farmers' Association, *Submission 140*, p. 17.

66 Mr Paul McKenzie, *Submission 24,* p. [14].

67 Dr Lindsay Campbell, *Submission 28*, p. 2.

68 Australian Farm Institute, *Submission 129*, Executive Summary.

essential not just for productivity gains but also for the stewardship of land, water, capital and human resources engaged in agriculture. Biosecurity is also largely supported by RD&E, funded by the RDCs. Management of existing plant and animal diseases; and the enhancement of supply chains is also heavily and effectively supported by RDCs.[69] The Victorian Farmers Federation (VFF) suggested that as the rate of productivity growth drops with declining real investment in RD&E, it is essential to maintain both public funding and levy-based funding if the agricultural sector is to achieve the productivity gains required to meet rapidly increasing Australian and world food demand.[70]

1.45 Some of the gains in the agricultural sector brought about by R&D investments highlighted in evidence included:

- in the cotton sector – an increase in domestic cotton yields at almost three times the world average, 95 per cent reduction in the use of pesticides, a 40 per cent improvement in the use of water, and the generation of over $2 billion in annual export earnings.[71]
- in the vegetable sector – greater access to vital crop protection products, export development and capacity development activities have contributed to increased export of Australian vegetables, improved soil health and productivity solutions as well as innovative soil DNA testing for potato disease.[72]
- in the dairy sector – total factor productivity for Australian dairy farms increased at an average annual rate of 1.6 per cent from 1978–79 to 2010–11. While there were other factors involved, R&D provided the basis for much of this productivity improvement. Independent experts estimate the overall benefit of R&D expenditure to the levy as being in the range of 3.3–6 to 1.[73]
- in the horticultural sector – cross-benefit analysis of R&D investments undertaken within the apple and pear industry suggest the benefits of $1 invested range from $2.10 to $5.20;[74] and
- an assessment of CRDC research projects has shown CRDC R&D research returns around $13 for every dollar invested to levy payers but $30 for every dollar invested to the nation.[75]

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69 Ag Institute Australia, *Submission 43*, p. 1.

70 Victorian Farmers Federation, *Submission 85*, p. [4].

71 Dr Mary Corbett, Cotton Research and Development Corporation, *Committee Hansard*, 3 February 2015, p. 44.

72 Mr Richard Mulcahy, AUSVEG, *Committee Hansard*, 4 February 2015, p. 2.

73 Victorian Farmers Federation, *Submission 85*, p. [5].

74 Apple and Pear Australia Ltd, *Submission 95*, p. 27.

75 Cotton Australia, *Submission 131*, p. 2.

1.46 ALFA made the observation that:

> In the pioneering days of Australia's history, technology and innovation were used to overcome the obstacles faced by farmers trying to make a living off impoverished soil and very dry land. Since then, we see farmers making use of technology and innovation to remain viable players in a keenly competitive international market, while ensuring the sustainability of their social, economic and biophysical environments. Into the future, rural R&D and marketing will continue to help the agricultural sector meet the challenges associated with the rising cost of agricultural inputs, declining commodity prices, climate change, food security and meeting the increasingly discerning needs of consumers.[76]

1.47 However, it is within this context of a highly competitive global market, declining state government engagement in RD&E and declining returns to producers in some industries that levy paying producers and agricultural industries more broadly have called for enhanced accountability for their hard-earned levy funds. It is to that area of inquiry that the committee now turns.

76 Australian Lot Feeders' Association, *Submission 29*, p. 1.