



Australian Government
**Rural Research
and Development Council**

Rural Research and Development *Update*

November 2011

Background

The Rural Research and Development (R&D) Council is the government's key advisory body on rural R&D. The principal goal of the council is to provide high level advice and coordination to better target and improve the effectiveness of the government's investment in rural R&D.

The Rural R&D Council has developed a National Strategic Rural Research and Development Investment Plan, released by the Australian Government on 15 June 2011. The Investment Plan outlines a rationale for balancing investment in rural R&D and identifies major themes against which investment should be determined. These themes are industry development and sustainable production; transformational research; capacity in people; and international links.

This report provides an update of policy and program developments in rural R&D and innovation. Updates are grouped by the investment themes in the Investment Plan, with a further group added for more general developments.

More information on the Rural R&D Council and the Investment Plan can be found on the Department of Agriculture, Fisheries and Forestry (DAFF) website: www.daff.gov.au/council.

Industry development and sustainable production

National Primary Industries Research, Development and Extension (RD&E) Framework

Fourteen sectoral and cross-sectoral strategies under the National Primary Industries RD&E Framework have been endorsed by the Primary Industries Ministerial Council (PIMC) to date. Of the remaining seven strategies in the first tranche, cotton, wool, biofuels and bioenergy, and water use in agriculture were considered by PIMC on 28 October 2011, with food and nutrition, animal biosecurity and plant biosecurity to be finalised in 2012.

Following the Council of Australian Governments' decision to reform Ministerial Councils, a new Standing Council on Primary industries has been launched. The new Standing Council will encourage greater collaboration and promote continuous improvement in the investment of rural research and development resources nationally.

Productivity Commission report on the rural Research and Development Corporations (RDCs)

The Australian Government tabled the Productivity Commission's final report on the rural RDCs in Parliament on 15 June 2011. The government is now developing a final response to the report, and is consulting with key stakeholders on the report, as well as the Rural R&D Council's Investment Plan, during November 2011.

Co-operative Research Centres (CRCs)

Applications for the 14th selection round of the CRC Program closed on 1 July 2011. The priorities for the selection round are social innovation, sustainable regional communities and clean manufacturing. The CRC selection committee has shortlisted the applicants for interviews in early November 2011. Of the ten extension bids that were shortlisted, two were agriculture-related (Plant Biosecurity and Invasive Animals). Senator the Hon. Kim Carr, Minister for Innovation, Industry, Science and Research, will announce successful applicants in December 2011.

Primary Industries Adaptation Research Network (PIARN)

Applications have closed for the inaugural PIARN Master Class on climate change adaptation in the primary industries. The Master Class aims to build capacity amongst early and mid career researchers, research managers and policy analysts in climate change adaptation. The Master Class

program is structured as a series of three-day modules held in different locations across rural and regional Australia, with the first module to be held on the Eyre Peninsula on 21-23 November 2011. More information on the Master Class can be found at: www.piarn.org.au/events/piarn-master-class.

National Food Plan

The Australian Government committed to developing a national food plan to better integrate food-related policy across the supply chain, from producers to consumers. The National Food Plan will help protect and improve Australia's food security status, support population health outcomes and maximise food production opportunities. On 23 June 2011, Senator the Hon. Joe Ludwig, Minister for Agriculture, Fisheries and Forestry, released an issues paper to inform the development of a national food plan. Consultation consisted of a call for public submissions, a series of roundtable meetings and a public webcast. During ten weeks of public consultation, the Australian Government received 278 written submissions and held 19 roundtable meetings across Australia. The government received a broad range of feedback from a variety of points of view, and is considering the issues raised before deciding on policy options for the plan. There will be further consultation opportunities for stakeholders. Further information on the National Food Plan, including the issues paper and submissions received, is available at: www.daff.gov.au/agriculture-food/food/national-food-plan.

R&D Tax Incentive

The Australian Government's legislation for the new R&D tax credit was passed by the Parliament on 24 August 2011. The program is now known as the R&D Tax Incentive. Information sessions were held around Australia in September and October 2011 to assist with company understanding of the new requirements for the incentive. An R&D Tax Incentive Advisory Committee has been established to monitor the performance of the program and provide advice to government on its implementation and operation. The committee will be responsible for canvassing a broad range of views on the operation of the R&D Tax Incentive, and advising government on how well the program is working.

Regulations and decision making principles to support the administration of the R&D Tax Incentive have been redrafted following feedback received from recent consultations. They are expected to be made by the Executive Council by the end of 2011. Further information on the R&D Tax Incentive is available at: www.ausindustry.gov.au/InnovationandRandD/RandDTaxIncentive.

ABARES publication

In September 2011, ABARES released a report entitled *Public investment in agricultural R&D and extension: an analysis of the static and dynamic effects on Australian broadacre productivity*. The report finds that public investment in R&D and extension between 1952-53 and 2006-07 has had a significant and positive effect on broadacre total factor productivity (TFP). The report also finds that the relative contributions of foreign and domestic research (including domestic extension) to broadacre TFP growth have been roughly equal and account for the bulk of average annual broadacre TFP growth (1.23 per cent a year, of a total of 1.96 per cent a year). Finally, the report considers the trade-offs between investing in R&D and extension. It finds that increased investment in extension in the short run can enhance TFP growth by bringing forward technology and knowledge adoption, but that at an aggregate level, reallocating existing R&D funding to extension is unlikely to maximise long-term productivity growth. The report is available at: adl.brs.gov.au/data/warehouse/pe_abares20110914.01/RR11.07_PubInvAgRandD.pdf.

Transformational research

Biomass value chains

In September 2011, Senator the Hon. Kim Carr, Minister for Innovation, Industry, Science and Research, released two scoping studies on the viability of Australian tropical (sugar cane) and temperate (forest and crop residues) biomass value chains. The studies consider both the establishment of Australian biomass-based industries and the supporting policy framework. The studies identify that there is sufficient tropical and temperate biomass for commercial scale production of chemicals, materials and fuels/energy. Biomass-based industries could create export revenues, reduce Australia's dependency on petroleum imports and revitalise existing industries (sugar, forestry, pulp and paper and chemicals). However, the studies also recognise several challenges in establishing biomass value chains. The processes involved are technically challenging, and the facilities are expensive to set up. Moreover, there are existing markets for both sugar and forest products (such as woodchips). As the economic case for establishing biorefineries depends to a large degree on market prices for these commodities, ensuring a stable feedstock supply for biorefineries may prove challenging. Further information on the studies is available at: www.innovation.gov.au/Industry/Biotechnology/IndustrialBiotechnology/Pages/BioeconomyandIndustrialBiotechnology.aspx.

Carbon Farming Futures – Filling the Research Gap

The first round of funding for Filling the Research Gap is now open, with the application period closing on 3 February 2012. Filling the Research Gap is a component of Carbon Farming Futures and will invest \$201 million to support research into emerging abatement technologies, strategies and innovative management practices that reduce greenhouse gas emissions from the land sector, sequester carbon and enhance sustainable agricultural practices. Research priorities are reducing methane emissions, reducing nitrous oxide emissions, sequestering carbon and improving modeling capability. Details of the program guidelines and eligibility are available at: <http://www.daff.gov.au/climatechange/carbonfarmingfutures/ftfg>.

Capacity in people

Chief Scientist's Review of the Health of Australian Science

The Office of the Chief Scientist is carrying out a review of the Health of Australian Science by profiling the strengths and vulnerabilities of Australia's present science capability. This profile will be analysed in the contexts of emerging science areas and the increasing internationalisation of science. The project is due to be completed in 2012 and will include:

- A survey of senior secondary school students' perceptions of science.
- A survey of first year undergraduate students' perceptions of science.
- An update of the report *Sustaining Science: University Science in the 21st Century*. The original report covered the period 2001-06 and it will be updated to 2010.
- Analysis of the Excellence in Research for Australia, National Competitive Research Grants Scheme, and Higher Education data sets.

Further information can be found at: www.chiefscientist.gov.au.

Senate inquiry into agricultural education and skills training

In September 2011, the Senate Standing Committee on Education, Employment and Workplace Relations launched an inquiry into meeting the education and skills requirements for the agriculture sector in Australia. The terms of reference make particular reference to the content, structure, and sufficiency of higher education and skills training to support future demand in agriculture and agribusiness in Australia. Organisations are invited to provide submissions by 8 November 2011. Further information, including the terms of reference, is available at: www.aph.gov.au/Senate/committee/eet_ctte/agribusiness/index.htm.

Victorian Parliament inquiry into agricultural education and training

On 28 July 2011, the Victorian Parliament's Education and Training Committee launched an inquiry into the effectiveness of agricultural education and training in Victoria. A priority for the inquiry is to examine the effectiveness of current agricultural-based education and training in providing skilled employees to the agriculture sector. Submissions to the inquiry closed on 30 September 2011, and the final report is due on 31 January 2012. Further information is available at: www.parliament.vic.gov.au/etc/inquiry/276.

2012 Science and Innovation Awards for Young People in Agriculture, Fisheries and Forestry

Applications for the 2012 Science and Innovation Awards are open until 18 November 2011. 18-35 year olds can apply for up to \$22,000 to fund a project on an innovative or emerging scientific issue to benefit Australia's primary industries. The Awards aim to encourage science, innovation and technology in rural industries and help to advance the careers of young scientists through national recognition of their research ideas. Project recipients can undertake groundbreaking research and innovation with the objective of keeping Australia's rural industries sustainable and profitable. There are twelve Award categories open for applications: cotton, dairy, fisheries and aquaculture, forestry, grains, viticulture and oenology, animal welfare, red meat processing, pork, new and emerging rural industries, meat and livestock and horticulture. Further information can be found at: www.daff.gov.au/abare-brs/conferences-events/scienceawards.

Education Investment Fund – Special Regional Priorities Round

On 7 October 2011, the Prime Minister opened a \$500 million fund to build world class education and training facilities for students in regional Australia. The special Regional Priorities Round of the Education Investment Fund provides a boost to higher education institutions and vocational education and training providers across regional Australia. This targeted investment will also contribute to economic growth and development in regional Australia by addressing the skills needs of regional communities. More information on the Regional Priorities Round is available at: www.deewr.gov.au/eifrpr.

Regional Universities Network

The Regional Universities Network was formed in October 2011 to advocate on behalf of universities based in regional areas. The new network provides an opportunity for member universities to promote high-quality collaborative research and enhance their research strengths in areas like health, social and environmental sciences. The founding members of the group are Central Queensland University, Southern Cross University, University of Ballarat, University of New England, University of Southern Queensland, and University of the Sunshine Coast.

International links

OECD Green Growth Strategy

In May 2011 the Organisation for Economic Co-operation and Development (OECD) released its Green Growth Strategy. The strategy provides a practical framework for governments to make the most of opportunities arising in the green economy for new sources of growth and jobs. It recommends that governments should put in place policies that tap into innovation, investment and entrepreneurship to drive the shift towards a greener economy. The strategy aims to help countries foster economic growth and development while ensuring that natural assets continue to provide resources. It also adds that greener agriculture would reinforce environmental sustainability, economic growth and social well being.

The next steps are for the strategy to be mainstreamed in OECD analytical work and for green growth considerations to be integrated into the broader work of the OECD's multilateral policy surveillance activity. The OECD will also work closely with other organisations, such as the United Nations Environment Program (UNEP) to consider ways the green growth agenda may monitor progress and develop a common set of core indicators for green growth. In view of the United Nations Conference on Sustainable Development to be held in Brazil in June 2012 (Rio +20), the strategy is also being considered in the context of being applied to developing countries.

The Green Growth Knowledge Platform (GGKP) is a partnership between the OECD, the UNEP, the World Bank and the Global Green Growth Institute. GGKP's mission is to enhance and expand efforts to identify and address major knowledge gaps in green growth theory and practice and help countries design and implement green growth policy. The inaugural GGKP conference will be held on 12-13 January 2012, in Mexico City. Further information on the Green Growth Strategy can be found at: www.oecd.org/document/10/0,3746,en_2649_37465_44076170_1_1_1_37465,00.html.

Knowledge-Based Bio-economy Forum

The Knowledge-Based Bio-economy (KBBE) is a quadrilateral grouping of the European Commission, Australia, Canada and New Zealand. The forum aims to address global challenges through the development of the bio-economy and knowledge sharing and creation to address challenges and encourage innovation. The Second International Forum was held on 5-6 October 2011, in Ottawa, Canada.

The main objective of the second Forum was to address the priority policy issues for implementing a bio-based economy in all countries. These priority issues included reviewing government models for the agri-food sector, defining targets for monitoring achievements and analysing skills needed for the future bio-based economy. The Forum considered the operational objectives for the next two years in each of the four scientific sub-groups: biotechnologies for bio-refineries and bio-based material; food research; research in fisheries and aquaculture; and sustainable agriculture. Australia is the lead country in the food research sub-group and is an active participant in the other groups.

Australia provided briefing to Forum attendees on current R&D commitments and priorities in Australia, including the government's response to the Productivity Commission's inquiry into the rural RDCs, the Rural R&D Council's Investment Plan and rural R&D priorities including the National Primary Industries RD&E Framework, the National Food Plan and the Clean Energy Future initiative.

G20 Seminar on 'Re-energising Global Agricultural Productivity'

On 13 October 2011, Australia and France co-hosted a G20 Seminar in Brussels on 'Re-energising Global Agricultural Productivity'. The seminar was an outcome of the 'Action Plan on Food Price

Volatility and Agriculture' approved by the G20 Agriculture Ministers at their meeting in Paris on 22-23 June 2011. The objective of the seminar was to advocate the important role agricultural productivity plays as part of the comprehensive approach to improving global food security. Participants included representatives from a range of countries, research organisations, industry groups and international institutions. The seminar showed that specific attention should be given to improving the quality and diversity of agricultural production and to developing a nutrition-sensitive and sustainable agricultural policy in all parts of the world, but that measures should be tailor-made to countries and region-specific needs. The crucial role of research, development and innovation in addressing food security and productivity challenges in developed and developing countries was particularly highlighted during the seminar. Outcomes of the seminar will be presented to G20 leaders at the Cannes Summit and inform further G20 work on agricultural productivity and food security, including further implementation of the Action Plan.

Crawford Fund Conference

The 2011 Crawford Fund Conference was held in Canberra on 14-16 August. The conference theme was 'The Supermarket Revolution in Food: Good, Bad or Ugly for the World's Farmers, Consumers and Retailers?' Presentations and the conference summary are now available at: www.crawfordfund.org/conference/conf2011.

Other rural R&D and innovation activities

2011 Strategic Roadmap for Australian Research Infrastructure

Senator the Hon. Kim Carr, Minister for Innovation, Industry, Science and Research, released the 2011 Strategic Roadmap for Australian Research Infrastructure on 30 September 2011. The Roadmap articulates Australia's national research infrastructure priority areas, and builds on the previous Roadmap, which was developed in 2008. The Roadmap sets out the government's priority areas for national, collaborative research infrastructure over the next five to ten years. It will inform future decisions on where Australia should make strategic infrastructure investments to further develop its research capacity and improve research outcomes. As well as the Roadmap, the government, with the support of the National Research Infrastructure Council, has also developed a Strategic Framework for Research Infrastructure Investment to guide the development of policy advice and the design of programs relating to the funding of research infrastructure. Further information is available at: www.innovation.gov.au/science/researchinfrastructure.

Maximising the Innovation Dividend

Following the release of the *Maximising the Innovation Dividend: Review Key Findings and Future Directions* report, Australia's Chief Scientist, Professor Ian Chubb AC, will lead a new committee to guide Australian Government research investment, ensuring it meets the nation's strategic priorities and delivers long-term prosperity and security. Initially, the committee will develop a national research investment plan. The Department of Innovation, Industry, Science and Research will consult with stakeholders to update and refine National Research Priorities to keep them relevant as broad statements of the Government's aspirations for publicly funded research. More information on *Maximising the Innovation Dividend* is available at: <http://www.innovation.gov.au/Research/Pages/FocusingAustraliasPubliclyFundedResearch.aspx>.