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# **Submission**

**Senate Education, Employment and Workplace  
Relations Committee**

**Inquiry into the Effects of Climate Change on  
Training and Employment Needs**

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## Recommendations

The following recommendations for the *Senate Education, Employment and Workplace Relations Committee's Inquiry into the Effects of Climate Change on Training and Employment Needs* are provided for the Committee's consideration.

- The Australian and State Governments work closely with AgriFood Skills Australia and the agrifood industry to achieve a whole of government national approach for the education sectors in addressing climate change, with industry at the centre of this approach.
- Sufficiently resource the vocational education and training sector to meet the challenge of the increasing emphasis on 'green' jobs and skills, and the articulation of 'green' pathways from school through to higher education.
- The Australian Government recommends that CRCs and RDCs work with AgriFood Skills Australia to support the dissemination of relevant research outcomes through our stakeholder networks.
- Adequate resources are available to up-skill private and public Registered Training Organisations to provide high-level training in 'green' skills.
- Recognise and support agrifood industry strategies to address ecological sustainability and climate change issues.

## Key Points

The following key points are provided for the Committee's consideration.

- The sectors covered under the AgriFood Skills Australia umbrella generate more than \$200 billion per year and provide jobs for almost 900,000 Australians.
- Agrifood industries utilise nearly two-thirds of Australia's land mass.
- Skills shortages in the agrifood sector at all levels add to the complexities of addressing climate change solutions.
- The vocational education and training sector is vital in meeting the demand for future climate change professionals.
- AgriFood Skills Australia, as an Industry Skills Council (ISC), is well positioned to support the dissemination of new research aimed at reducing the carbon footprint of our sectors through our industry networks, training package reviews, relationships with governments at all levels and education and training networks.
- Registered Training Organisations (including school RTOs) will need knowledgeable and skilled trainers to meet the demand from industry for up-skilling to comply with the Carbon Pollution Reduction Scheme.
- The agrifood industry is currently engaged in multiple strategies to address ecological sustainability and climate change issues.
- Training Packages will require constant review to meet industry needs for 'green' knowledge and skills.
- AgriFood Skills Australia, in partnership with our key stakeholders, is well positioned to support education and training of the workforce in climate change solution strategies through its experience in delivering short-courses, workshops, pilots and longer term projects.
- Australia's VET system is vibrant and ready to be utilised to work with the business community to address climate change and ecological sustainability more generally.

## Introduction

The AgriFood Skills Council (AgriFood) welcomes the opportunity to provide a submission to the *Education, Employment and Workplace Relations Committee's Inquiry into the Effects of Climate Change on Training and Employment Needs*.

AgriFood is well positioned to make this submission due to its close working relationships with industry across all our sectors to improve education and training outcomes.

As an Industry Skills Council (ISC), AgriFood Skills Australia also works with all levels of government to advise on workforce development, skills issues and vocational education and training.

AgriFood is preparing for an increasing focus across our sectors to meet the challenges of climate change. AgriFood is working with stakeholders to develop policy and a range of initiatives including workforce development, skills for the future and improving the outcomes from public and private training. This will assist industry and governments to meet emerging challenges associated with climate change utilising the education and training sector.

### **AgriFood Skills Australia's Role**

AgriFood is an independent not-for-profit company with an industry representative board. It is one of eleven industry skills councils established by the Australian government to identify and respond to the skilling needs of our industries. A key activity in achieving this is the development, implementation and continuous improvement of quality training and workforce products and services, including training packages.

AgriFood covers the following sectors:

- Food processing, beverages and pharmaceuticals manufacture
- Rural and related industries – agriculture, horticulture, conservation and land management, animal care
- Meat including abattoirs, small goods and meat retailing
- Seafood – aquaculture, fishing and fishing charter operators and seafood processing
- Racing – thoroughbred, harness and greyhound.

AgriFood is resourced principally by the Australian Government to:

- Collect industry intelligence and advise business and government on workforce development and skill needs Australia-wide
- Actively support the development and implementation of quality skills training arrangements and related services
- Provide independent skills and training advice to businesses, including matching identified skills needs with appropriate training solutions
- Promote the benefits of skills development and training to industry enterprises, employers and employees.

In undertaking these roles AgriFood draws on widespread industry networks and active stakeholder engagement.

AgriFood also provides advice to Skills Australia on emerging trends and issues collected through qualitative and quantitative research for our annual environmental scan of the agrifood industry.

### **Our Sectors' Challenges**

Together our sectors – agriculture, horticulture, conservation, animal care, seafood, food, beverage, pharmaceuticals, meat and racing – generate more than \$200 billion per year, representing 46% of retail sales and approximately 20% of exports. Almost 900,000 people work in the agrifood sectors and there are over 140,000 separate enterprises ranging from small one person operations to multi-international enterprises with thousands of employees.

Agrifood industries are responsible for nearly two thirds of Australia's landmass and our sectors are a significant source of employment in regional and rural Australia.

Sustainability has long been fundamental to the ongoing profitability and survival of agrifood businesses.

Agriculture is responsible for 17 percent of Australia's carbon emissions and as such will increasingly come under scrutiny to reduce its carbon footprint. This will be driven not only by government but also by consumers. Food and seafood production will feel the impacts of climate change through increasing drought, dryland salinity, warming sea temperatures and changing ocean chemistry.

Horticulture will also be impacted with less water available for use, irrigation techniques will need to change and land management processes will come under increasing scrutiny.

The food processing industry is one of the largest users of water drawing approximately 28 percent of the total water used in manufacturing nationwide. The sector is concerned that the carbon pollution reduction scheme will reduce its competitiveness against imports where a tax on carbon is non-existent.

Pricing of the goods and services produced by our sector is likely to change with carbon reduction initiatives causing adjustments in consumer demand. There will most likely be growth in 'green' products as a result of government legislation and consumer demand. This may lead to price instability. Training and education in adapting business skills will be required to support our sector to meet these challenges.

The Agrifood sectors also face challenges attracting and retaining staff due to the increased competition from the resources sector over the past five years. While this competition has decreased over the past 12 months, there remains a significant skilled labour shortage. This shortage and the 'bleeding' of our skilled people to the resources sector may impact on the agrifood sectors to prepare for, and adapt to, climate change.

Our skills shortages are not only at the skilled and semi-skilled level. At the university level, a report from the Australian Council of Deans of Agriculture recommends that our sectors require at least 2000 graduates per year to enter the workforce to meet demand. Currently less than 800 students are graduating with predictions that this will decline further. This shortage will have an impact on the sectors' ability to meet the growing challenges of climate change and ecological sustainability more broadly.

On a positive note, the agrifood sector is engaged in multiple strategies to address environmental issues including climate change. Agriculture plants over 20 million trees a year with a new business concept of carbon farming emerging.

The Australian Government, through such initiatives as Farm Ready and Caring for our Country, has allocated funding over four years to boost training for primary producers to respond and adapt to climate change.

Sustainable use and management of land, water and vegetation are necessary to sustain businesses, the environment and the workforce. To achieve this, the fundamental knowledge

and training to support industry to improve its environmental footprint is vital to meet the challenges of climate change and ecological sustainability.

**The ability of universities and other research and training institutions to meet current and future demand for climate change professionals.**

AgriFood Skills Australia is well positioned to support government to meet the current and future demand for climate change professionals, semi-professionals and workers.

Recently, AgriFood undertook national consultations to inform the *2009 Environmental Scan of the Agrifood Industries* (See attachment). These consultations confirmed that climate change is of critical importance to all of the sectors covered by our organisation.

Australia invests significant resources into research through universities, CSIRO, CRCs and RDCs. There are over 30 CRCs and RDCs that focus on research into the sectors covered by AgriFood Skills Australia. It is clear from our consultations undertaken in early 2009 and reported in the *Environmental Scan* that these research groups often lack the ability to promote and disseminate their research findings due to the large number of agri-businesses and the geographic spread of our sectors.

AgriFood is well positioned to support the distribution of new research to our stakeholders. Our strength lies in our networks as an enabling organisation, and as a result, we are able to disseminate research to business, industry and education and training institutions through our communication mechanisms, our projects and pilots and to Registered Training Organisations (RTOs) for inclusion in course materials.



AgriFood holds a yearly conference that attracts government representatives, RTOs and industry. This conference is recognised for its ability to promote best practice in agrifood vocational education and training. To meet the challenges of climate change and ecological sustainable development, these conferences are able to support the distribution of knowledge and skills to a diverse audience and generate new thinking.

New research also informs the training packages for which AgriFood has coverage. As new 'green' jobs are developed to meet the needs of ecological sustainability and climate change, new qualifications and units of competency may be required to meet the growing demand from industry.

Climate change will require many workers to up-skill in new 'green' competencies as end users demand for 'green' products and approaches increase.

Skills in water management, information technology, natural resource management, risk management, climate change management and the use of increasingly sophisticated equipment, to name but a few, will be paramount to enhancing productivity, profitability and sustainability in our sectors.

New occupations in 'green' industries that support the sectors covered by AgriFood are expected to develop over the coming years. While these jobs are yet to be identified, it will be important for AgriFood to keep up-to-date to ensure the skill needs of industry are supported. Thus outcomes of research will be vital in supporting this endeavour.

AgriFood concurs with the Department of Education, Employment and Workplace Relations submission that a move towards 'green' skills will also have significant implications for Registered Training Organisations (RTOs). It is essential that RTOs have the capacity to respond to emerging needs, provide quality training in new 'green' qualifications and deliver training with flexibility. Trainers will need to have access to the latest information on 'green' skills and knowledge to ensure their courses are up-to-date and provide relevant skills. AgriFood is able to play a significant role in supporting this need.

As the vocational education and training (VET) system moves to respond to emerging needs, three essential guiding principles to underpin VET activity will be required. These have been detailed in the *Environmental Sustainability: An Industry Response* report prepared on behalf of the 11 industry skills councils and include:

1. Industry specific – Environmental sustainability must be approached in a manner that is specific to each job and the industry within which the employee works. Skills will differ from industry to industry and job to job.
2. Appropriately timed – Environmental sustainability skill needs will emerge at different rates from industry to industry. The sectors affected by compliance requirements will be primary instigators for new education and training.
3. Adds value – the need for new skills must be determined carefully and meet industry needs to cover its obligations to reduce its impact on climate change. It is important that skill development adds to workforce capacity and not add unnecessarily to the burden faced by enterprises.

To meet these guiding principles the VET system must remain industry driven with the onus on ISCs including AgriFood Skills Australia to effectively identify and respond to emerging needs. AgriFood Skills is well positioned to meet this challenge as a broker of partnerships between public and private Registered Training Organisations (RTOs), industry and governments.

However, the VET system is facing its own challenges with a skill shortage of qualified trainers emerging and an aging workforce. Environmental sustainability training will require teaching staff in both generic sustainability skills and specific industry skills.

The VET system is ready to work with industry and research organisations to ensure the right knowledge and skills are available to businesses to meet the challenges of climate change. AgriFood Skills Australia, through utilising its networks, reviewing training packages, qualifications and units of competency, is well positioned to assist government and industry to meet current and future demand for climate change professionals.

## **Measures to assist understanding of climate change in the Asia-Pacific region, including provision of training and skills assistance**

AgriFood Skills Australia is well positioned to support and provide training and skills assistance to improve the understanding of climate change in the Asia-Pacific region.

AgriFood is particularly well placed to implement programs in rural and regional Australia such as business skills pilots, workforce development initiatives and through the development of national training packages.

### **AgriFood Training Packages – meeting the challenges of sustainability**

As the VET sector, driven by industry demands, moves to meet the challenges of environmental sustainability and climate change, training packages will need to be constantly reviewed. AgriFood is well placed to undertake this challenge with the assistance of an industry-led Board and five industry standing committees – racing, food, meat, seafood and rural – that provide advice on sector issues.

AgriFood Skills Australia is responsible for the following 10 training packages:

- AGF07 AgriFood Training Package
- FDF03 Food Processing Industry Training Package
- MTM07 Australian Meat Industry Training Package
- RGR08 Racing Training Package
- RTD02 Conservation and Land Management Training Package
- RTE03 Rural Production Training Package
- RTF03 Amenity Horticulture Training Package
- RUV04 Animal Care and Management Training Package
- SFI04 Seafood Industry Training Package
- SUG02 Sugar Milling Training Package

Within these training packages are a number of qualifications. These qualifications are further divided into over 2000 units of competency. For a full list of AgriFood qualifications and units of competency please visit [www.agrifoodskills.net.au](http://www.agrifoodskills.net.au).

Over recent years climate change has increased considerably as an issue for our sectors. The on-set of the Government's Carbon Pollution Reduction Scheme (CPRS) will only increase the need for training, the development of new skills sets and the review of training packages to meet legislative requirements and consumer demands for 'green' products.

As new 'green' jobs increase there may be a need for new qualifications and units of competency in some areas while others may need new skills embedded in existing units of competency.

AgriFood training packages are under constant review and include an increasing number of units that specifically address environmental sustainability skills. Examples include:

- RTE4203A Implement a property improvement program
- RTE5524A Develop and implement sustainable land use
- RTE4603A Implement an irrigation related environmental protection program
- RTD2202A Conduct erosion and sedimentation control activities
- RTC2401A Treat weeds
- RTD4504A Monitor biodiversity
- RTD5003A Manage natural area restoration programs
- RTC5504A Develop a management plan for a designated area

- RTE4814A Provide information and referrals on environmentally responsible fertiliser and ameliorant use
- RTC4513A Supervise acid sulphate soil remediation and management projects
- RTD2502A Maintain wildlife habitat refuges
- RTD3034A Implement revegetation works
- RTD3212A Implement erosion control and sedimentation measures.

AgriFood has conducted research into the skilling implications to meet the challenges of environmental sustainability including climate change. As a result of this research the following initiatives are being implemented:

**Initiative 1:** Environmental considerations have been incorporated into the Evidence Guide of each competency within the Rural Production and Amenity Horticulture Training Packages

**Initiative 2:** Mapping of units of competency from Rural Production, Amenity Horticulture and Conservation and Land Management Training Packages to the Natural Resource Management (NRM) and Ecological Sustainable Development (ESD) programs to help facilitate their deployment.

**Initiative 3:** Identifying a range of skill sets targeting operational functions including Sustainable Agriculture Training Plan, Fertilizer Industry Accreditation Program (Fertcare) and chemical user accreditation programs.

**Initiative 4:** Analysis of key learning and skill objectives of the Farm Ready program and mapping of units of competency which improve the capacity of primary producers and land managers to adapt to climate change and increase their self-reliance and preparedness.

**Initiative 5:** Incorporation of guideline sustainability units into the Food Processing Training Package.

**Initiative 6:** Safe chemical applications have been incorporated in the pre-vocational Weed Management Skill Set.

**Initiative 7:** Working with Research Development Corporations to incorporate VET in their research and development opportunities.

**Initiative 8:** Using the Rural Training Package to support a range of training initiatives for conservation programs such as Green Corps and Greening Australia.

AgriFood's recent national consultations with key leaders in our sectors highlighted that there is an acceptance that climate change is real. However, there is no common understanding of measures that could be taken across industry that could reduce CO2 emissions and/or reduce our sectors' environmental footprint.

AgriFood is able to play a significant role in supporting industry to determine cross-sector responses to climate change and environmental sustainability more broadly. We have experience in delivering short-courses, workshops, programs and longer term pilots to our stakeholders as evidenced by the business skills pilots currently being implemented in the Wheatbelt of Western Australia and Atherton Tablelands in Queensland. As part of these pilots, climate change and the impacts on businesses will be an issue of interest to small to medium sized agrifood enterprises.

Australia hosts a vibrant and talented vocational education and training system which can, and is waiting to, be utilised as a vehicle to work with our business community to address



climate change and environmental sustainability. AgriFood, as a key player in this space, is well positioned to provide measures to assist understanding of climate change in the Asia-Pacific region and lead and provide training and skills assistance in our five core areas.

## **Conclusion**

AgriFood Skills Australia is uniquely positioned to work in collaboration with government at all levels and industry to assist with education and training advice and solutions that would reduce the ecological footprint of our sectors.

As an ISC with a broad coverage of sectors including rural and related industries, food production and processing, meat, seafood and racing, AgriFood through its networks is able to:

- Disseminate knowledge and information from scientists and research organisations to our stakeholders
- Improve skills training (including higher level skills) through collaboration with our industry leaders and review of training packages, qualifications and units of competency to reflect 'green' skills
- Deliver on-the-ground workshops, pilots and short courses focussed on our sectors' needs to meet the challenges of climate change.

AgriFood believes that a whole of government national approach is needed for the education sectors in addressing climate change with industry at the centre of this approach.

AgriFood Skills Australia would be pleased to provide further information to the Senate Education, Employment and Workplace Relations Committee to assist in its inquiry into the Effects of Climate Change on Training and Employment Needs.

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