



# Australian Dairy Industry Sustainability Framework Progress Report 2013





### **Enhancing Livelihoods**

For the 43,000 Australians employed on farms and in manufacturing by the dairy sector, dairying is their future. It creates jobs for generations and careers for life. By generating \$13 billion in economic value, dairying makes a vital contribution to the nation and, in particular, regional communities.



### **Improving Wellbeing**

With a unique natural package of 10 essential nutrients, dairy foods have helped underpin the health and wellbeing of generations of Australians. As an industry, we care deeply for the wellbeing of the community and our animals.



### **Reducing Environmental Impact**

Dairy farmers are responsible stewards of the land. Dairy works hard to reduce waste and greenhouse gas emissions, and to use water wisely. Technology and tenacity underpin our commitment to reduce our impact on the environment.



Chris Griffin

## From the Chair

The Australian dairy industry has a proud history of sustainability. On our farms and in our factories, we undertake many programs which contribute to enhancing livelihoods, improving the wellbeing of people and animals, and reducing our environmental impact.

But we continue to look for improvement and are strongly committed to working towards even better performance.

Launched in 2012, the *Australian Dairy Industry Sustainability Framework* guides our approach in this area. It builds on our existing activity and sets the direction for continual improvement and further action. It will drive practice change where necessary.

The Australian dairy industry has taken an industry-wide, whole-of-chain approach to sustainability, and we are very proud of this strongly-supported initiative.

At the same time, we acknowledge that for Australian dairy, sustainability is a work in progress. In this first Australian Dairy Industry Sustainability Framework Progress Report, we outline where we have got to, where we think need to be, and how we are going to get there.

Not all targets and measures in the Framework are confirmed, and in some cases, we are still collecting current baseline information. However, we are eager to get started with implementation and seek to be transparent with stakeholders. The Framework will evolve as we better understand our performance and as external factors arise.

We have had a lot of help to date in developing the Framework and our first progress report. I would like to sincerely thank all who have contributed, in particular our Steering Committee, members of the Dairy Sustainability Consultative Forum, and all other stakeholders who have provided input and expertise along the way.

The amount of interest and engagement we have experienced has been exceptional and very valuable in helping us move forward to become a more sustainable industry.

We commend to you the industry's first Sustainability Progress Report and we welcome your feedback.

Chris Griffin  
Dairy Sustainability Steering Committee Chair  
Dairy Sustainability Consultative Forum Chair  
Australian Dairy Industry Council Director

Noel Campbell  
Australian Dairy Farmers President  
Australian Dairy Industry Council Chair

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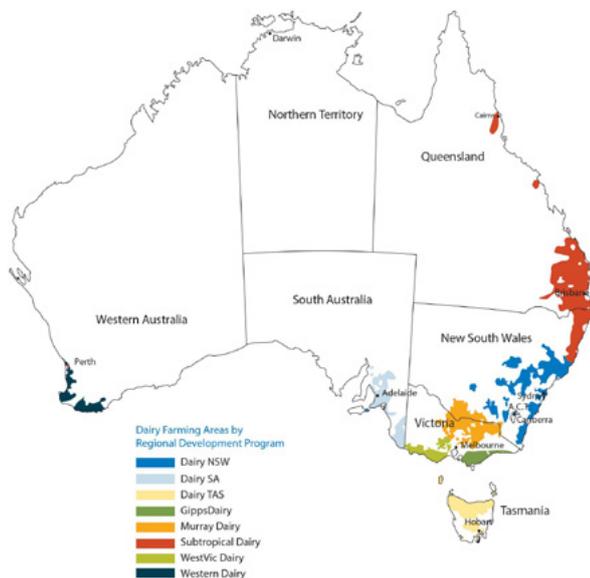
## Section A: Executive Summary

## 1. Australian dairy

The Australian dairy industry is a \$13 billion farm, manufacturing and export industry that makes a vital contribution to the Australian national economy. With a farmgate value of \$4 billion, the dairy industry enriches the quality of life in regional communities, where one in eight Australian lives.

Australian dairy exports account for 40% of Australian milk production, valued at \$2.76 billion in 2012/13 and accounting for 7% of world dairy trade (NZ 37%, EU 31%, USA 11%).<sup>[1]</sup> The top five markets are China, Japan, Singapore, Malaysia and Indonesia.

With 43,000 Australians directly employed in the dairy sector, dairy creates jobs for generations and careers for life. More than 100,000 Australians are estimated to be indirectly employed in related service industries such as veterinarians, chemical/fertiliser suppliers, equipment suppliers and service providers. In this way, dairy supports local communities while feeding millions of people.



### Dairy snapshot 2012/13

- \$13 billion industry
- \$4 billion at farm gate
- 43,000 direct jobs
- 100,000 indirect jobs
- 6398 dairy farms
- 9.2 billion litres of milk
- 40% of milk production exported earning \$2.76 billion dollars

Dairy is Australia's third largest rural industry with significant value-adding through downstream processing. The nation's dairy manufacturers produce retail and food service products, including drinking milk, milk powder, butter, cheese, yogurt and desserts, as well as specialised ingredients.

The manufacturing sector includes farmer-owned co-operatives as well as public, private and multinational companies. Co-operatives account for approximately one-third of the nation's milk production.

Australia's 6398 dairy farms produced 9.2 billion litres of milk in 2012/13. Productivity on Australian dairy farms is constantly growing, thanks to improved pasture, feed and herd management. Although most farms are pasture-based, feed remains one of the largest costs for farmers (nearly 30% of total farm cash costs in some regions).

Dairy farmers live and work on their farms. They are committed to the health and wellbeing of their animals, and the stewardship of their land for today and future generations. Most Australian dairy farms are owner-operated, with corporate farms making up around 3% of the total. The average herd size is 258 cows.

Dairy is well-established across temperate and subtropical areas of Australia. All states have dairy industries that supply fresh milk to their regions, with South-East Australia providing the bulk of the milk for other dairy products for both domestic and export markets.

For more details, see [www.dairyaustralia.com.au](http://www.dairyaustralia.com.au)

[1] Australian Dairy In Focus 2013

## 2. Overview

Customers, community, government and regulators have increasing expectations around the sustainability of agricultural practices.

The Australian dairy industry has a proud record of economic and social contribution, as well as managing natural resources. However in recent years, demands to better demonstrate the dairy industry's sustainability credentials have intensified, and it is expected this increased focus will continue.

Industry has recognised that a cohesive whole-of-industry approach is needed to effectively demonstrate the broader industry's commitment to sustainability, to align our efforts, and continue to improve performance. This demonstration will foster the continued support of both our domestic and international markets.

The industry has acknowledged the importance of support from outside the dairy sector, and the need to ensure our vision and plans meet expectations.

Over the past 12 months we have reviewed all current activity benchmarked against the Framework, and identified where performance improvement is still needed. We have committed to achieving key targets, and we're working to establish performance measures underpinned by baseline data.

The benefits of an industry-wide approach have already been demonstrated. Following extensive benchmarking of the Australian milk production system against Unilever's Sustainable Agricultural Code (SAC) for dairy production, the global food company has declared that all Australian milk production meets its SAC and can be sourced as 100% sustainably produced. Unilever aims to only source 100% sustainable agricultural raw materials by 2020.

On the following pages, a summary of the Framework's targets, performance measures and baseline data is presented. More detail can be found in Section B: Measuring Performance to 2020.

Some targets and performance measures still require investigation to define them more concisely, or obtain relevant baseline data to benchmark performance. The Framework will evolve over time to embrace change, and undergo a regular process of reporting, reviewing, revising and refining.

During 2014:

- Targets, measures and baselines will be reviewed and gaps addressed
- Action Plans to guide on-the-ground implementation of the Framework will be developed
- Implementation will continue
- A second progress report will be produced by December 2014

### 3. Targets and performance measures

The following pages provide an overview of the targets, performance measures and baseline data. Full details are in Section B: Measuring Performance to 2020.

Figure 1. Dairy sustainability at glance — priority areas, goals and targets

	Priority areas	Goals	Targets
<b>Enhancing Livelihoods</b>	 <ol style="list-style-type: none"> <li>1. Creating industry prosperity</li> <li>2. Supporting communities</li> <li>3. Investing in dairy people</li> </ol>	Improve the profitability and competitiveness of the dairy industry	1. Increase the future competitiveness and profitability of the Australian dairy industry
		Enhance the resilience and prosperity of communities	2. Increase the resilience and prosperity of dairy communities
		Enhance the expertise of and prospects for our people	3. Provide a safe work environment for all dairy workers 4. Attract, develop and retain a skilled and motivated workforce
<b>Improving Wellbeing</b>	 <ol style="list-style-type: none"> <li>4. Ensuring health and safety</li> <li>5. Maximising nutrition</li> <li>6. Caring for our animals</li> </ol>	Produce safe dairy foods and ingredients	5. All dairy products and ingredients sold are safe
		Provide valued nutritional products that contribute to good community health outcomes	6. Dairy contributes to improved health outcomes for Australian communities
		Deliver best care for our animals	7. Provide best care for all animals
<b>Reducing Environmental Impact</b>	 <ol style="list-style-type: none"> <li>7. Minimising our environmental footprint</li> </ol>	Maximise resource use efficiency	8. Improve nutrient, land and water management 9. Reduce the consumptive water intensity of dairy manufacturers by 20% 10. Reduce greenhouse gas emission intensity by 30%
		Minimise waste	11. Reduce waste to landfill by 40%

**Priority area 1:  
Creating industry prosperity**

**Goal:**

Improve the profitability and competitiveness of the dairy industry:

**Objectives:**

- Generating returns comparable with alternative uses of natural, human and capital resources
- Market development and market competitiveness
- Ongoing investment in and increased adoption of innovative solutions and effective use of new technologies

**Priority area 2:  
Supporting communities**

**Goal:**

Enhance the resilience and prosperity of communities:

**Objectives:**

- Increasing dairy's contribution to economic outcomes at local, regional, state and national levels
- Building capacity to embrace change, improving uptake of new technology and alternative practices; building resilience to climate variability

**Priority area 3:  
Investing in dairy people**

**Goal:**

Enhance the expertise of and prospects for our people:

**Objectives:**

- Our people have a safe and healthy work environment with the skills required to perform their roles competently

**Priority area 3:  
Investing in dairy people**

**Goal:**

Enhance the expertise of and prospects for our people:

**Objectives:**

- Building skills to deliver the sustainability objectives
- Planning for succession and attracting, developing and retaining talented people

**Target 1:  
Increase the future competitiveness and profitability of the Australian dairy industry**

**Performance measures:**

**1.1\* [x% increase] in the number of profitable dairy farms**

*Baseline: 56% of dairy farms profitable on rolling 3 year average (ABARES)*

**1.2\* Intent: Set measure around the market preference for buying Australian dairy products**

**1.3\* Intent: Set measure around ensuring sustainability criteria do not impede market access**

**1.4\* Intent: Set measure around increasing adoption of new technologies and innovative management practices**

*Baseline: 40% of dairy farmers reported they were planning capital investment (NDFS 2013) — further work required*

**1.5\* Intent: Set measure around providing consumers with greater choice and access to a variety of dairy products and/or ingredients to meet their specific nutritional needs**

**Target 2:  
Increase the resilience and prosperity of dairy communities**

**Performance measures:**

**2.1\* Intent: Set measure around contribution that the dairy industry makes to the economy of dairy regions**

**2.2 The contribution and importance of dairy is recognised in relevant local and state government strategies (especially growth and investment)**

**2.3 Increase consumers and dairy communities recognition of the value of the dairy industry to local communities through a:**

- 10% increase in the number of consumers who agree the dairy industry is an essential part of their community

*Baseline: 71% of consumers agree the dairy industry is an essential part of their community (DMW8 2013)*

- 15% increase in the number of dairy farmers who agree that "people in my region appreciate the role that dairy farmers like myself play in our community"

*Baseline: 76% of dairy farmers agree that "people in my region appreciate the role that dairy farmers like myself play in our community" (NDFS 2013)*

**Target 3:  
Provide a safe work environment for all dairy workers**

**Performance measures:**

**3.1 100% on farm and dairy processor workers completed OH&S training (on-going compliance)**

*Baseline: All dairy companies have OH&S programs in place*

**3.2 30% reduction in Lost Time Injury Frequency Rate (LTIFR)**

*Baseline: Dairy cattle farming: LTIFR 6.1 per million hours worked 2010/11*

*Dairy product manufacturing: LTIFR 9.4 per million hours worked 2010/11*

**3.3 Zero workplace fatalities**

*\*These measures, together with appropriate baseline data, will be quantified in 2014*

**Target 4:  
Attract, develop and retain a skilled and motivated workforce**

**Performance measures:**

**4.1 30% increase in the number of suitable applicants for dairy industry jobs**

*Baseline: 56% of dairy farms reported to have found suitable applicants for jobs (NDFS 2013) — manufacturer measures to be determined*

**4.2 Increase participation in development activities — 50% increase in education and 100% increase in extension activities**

*Baseline: 20% participation in extension activities in 2012*

**4.3 20% increase in the number of experienced and motivated employees retained**

**4.4 50% of dairy farmers have a well-developed business transition plan**

**Priority area 4:  
Ensuring health and safety**

**Goal:**

Produce safe dairy foods and ingredients:

**Objectives:**

- All dairy products and ingredients sold are 100% safe

**Target 5:  
All dairy products and ingredients sold are safe**

**Performance measures:**

**5.1 Zero non-compliant chemical residues found during the Australian Milk Residue Analysis (AMRA) Survey**

*Baseline: AMRA Survey results for 2011/12 had zero non-compliances*

**5.2 Zero product recalls due to food contamination (as reported by Product Safety Recalls Australia)**

*Baseline: 7 product recalls in 2012 as reported by Product Safety Recalls Australia*

**5.3 15% increase in the number of consumers who agree Australia produces high quality and safe dairy products**

*Baseline: 67% of consumers agree Australia produces safe dairy products and 77% agree Australia produces high quality dairy products (DMW8 2013)*

**Priority area 5:  
Maximising nutrition**

**Goal:**

Provide valued nutritional products that contribute to good community health outcomes:

**Objectives:**

- Dairy products being recognised, valued and increasingly consumed as an essential part of a healthy diet

**Target 6:  
Dairy contributes to improved health outcomes for Australian communities**

**Performance measures:**

**6.1 Improve recognition that dairy (milk, cheese and yogurt) is a key element of a healthy diet**

**a.** Improve consumers' perception of the health and nutrition benefits of dairy foods

- Increase the % of individuals who agree "Dairy foods are essential for good health and wellbeing" from 72% to 85%
- Decrease the % of individuals who agree "I'm concerned consuming dairy foods will increase my weight" from 32% to 20%

*Baseline: DMW8 2013*

**b.** National Health and Medical Research Council (NH&MRC) Australian Dietary Guidelines continue to recommend milk, cheese and yogurt as part of a healthy diet

*Baseline: Currently recommended by NH&MRC*

**6.2\* [X%] increase in the proportion of Australians meeting recommended daily serves for dairy**

*\*Measure will be set in 2014 when data is available*

**Priority area 6:  
Caring for our animals**

**Goal:**

Deliver best care for our animals:

**Objectives:**

- All dairy farmers meeting animal health and welfare responsibilities and adopting industry recommended practices
- All dairy farmers ensuring animal husbandry practices maximise health and welfare outcomes

**Target 7:  
Provide best care for all animals**

**Performance measures:**

**7.1 100% of industry complying with legislated animal welfare standards**

*Baseline: 92% of dairy farmers were aware of the Codes of Practice for the Welfare of Cattle (Animal Husbandry Survey 2012)*

**7.2 All of industry adopting relevant industry recommended practices for animal care**

*Baseline: From the 2012 Animal Husbandry survey: more than 80% of Australian dairy farmers do not dock the tails of their cows; 80% of dairy farmers do not use calving induction as a farm management tool; 57% of farmers disbud calves prior to two months; 87% of dairy farms have an effective lameness strategy in place; 94% of dairy farms have infrastructure in place to keep cows cool during hot weather*

**7.3 25% increase in the number of consumers who believe dairy farmers do a good job caring for animals**

*Baseline: 60% of consumers believe dairy farmers do a good job caring for their animals (DMW8 2013)*

### Priority area 7: Minimising our environmental footprint

**Goal:**

Maximise resource use efficiency:

**Objectives:**

- Improving nutrient, land and water management
- Reducing greenhouse gas emissions

### Target 8: Improve nutrient, land and water management

**Performance measures:**

**8.1 90% of stock are excluded from waterways**

Baseline: 73% of dairy farmers have some waterways fenced; 34% of dairy farmers have all waterways fenced

**8.2 80% of farmers implement nutrient management plans**

Baseline: 30% of farms had nutrient plans (2012 Dairying for Tomorrow Survey), with more than 80% undertaking soil tests before applying fertilisers

**8.3 80% of dairy farms with irrigation have implemented some level of irrigation automation**

Baseline: 47% of farms have at least some irrigation system automation (2012 Dairying for Tomorrow Survey)

**8.4 80% of dairy farms managing some land for conservation and biodiversity**

Baseline: 47% of farms have areas on farm managed for conservation (2012 Dairying for Tomorrow Survey)

**8.5 All dairy farmers actively managing noxious weeds**

Baseline: 37% of farmers identified noxious weeds as a land management issue (2012 Dairying for Tomorrow Survey)

**8.6 80% of farmers have practices to recycle water on farm**

Baseline: Around 50% of dairy farmers recycle some water (Dairy Self Assessment Tool — DairySAT)

### Priority area 7: Minimising our environmental footprint

**Goal:**

Maximise resource use efficiency:

**Objectives:**

- Improving nutrient, land and water management
- Reducing greenhouse gas emissions

### Target 9: Reduce the consumptive water intensity of dairy manufacturers by 20%

**Performance measures:**

**9.1 20% reduction in the consumptive water intensity of dairy manufacturers**

Baseline: In 2010/11, dairy manufacturers used an estimated 1.75 litres of water per litre milk processed (Australian Dairy Manufacturing Environmental Sustainability Report 2010/11)

### Priority area 7: Minimising our environmental footprint

**Goal:**

Maximise resource use efficiency:

**Objectives:**

- Improving nutrient, land and water management
- Reducing greenhouse gas emissions

### Target 10: Reduce greenhouse gas emission intensity by 30%

**Performance measures:**

**10.1 30% reduction in greenhouse gas emissions measured through:**

**a.** direct measurement of manufacturer emissions  
Baseline: Manufacturers' emissions were 1.787 tonnes of carbon dioxide (equivalent) per ML milk processed in 2010/11. (Australian Dairy Manufacturing Environmental Sustainability Report 2010/11)

**b.** output measures from farm abatement actions  
Baseline: From 2012 Dairying for Tomorrow survey: 20% of farms nationally have undertaken energy audits on dairy sheds; 48% of those had implemented an energy savings strategy; 40% of dairy farms have some renewable energy installation on farm

### Priority area 7: Minimising our environmental footprint

**Goal:**

Minimise waste:

**Objectives:**

- Maximise the recovery, reuse and recycling of materials from all waste streams

### Target 11: Reduce waste to landfill by 40%

**Performance measures:**

**11.1 Manufacturer level measured by:**

**a.** a direct quantitative target  
Baseline data: Manufacturers produced 2.69 tonnes of waste per ML milk processed in 2010/11. (Australian Dairy Manufacturing Environmental Sustainability Report 2010/11)

**b.** all manufacturers being signatories of the Australian Packaging Covenant (APC)  
Baseline: Out of 20 identified manufactures, 9 were signatories to the APC in 2013 (Australian Dairy Manufacturing Environmental Sustainability Report 2010/11)

**11.2 Intent: to set a measure around farm level waste reduction**

Baseline: Dairy SAT indicators will be used to set 2013 baseline

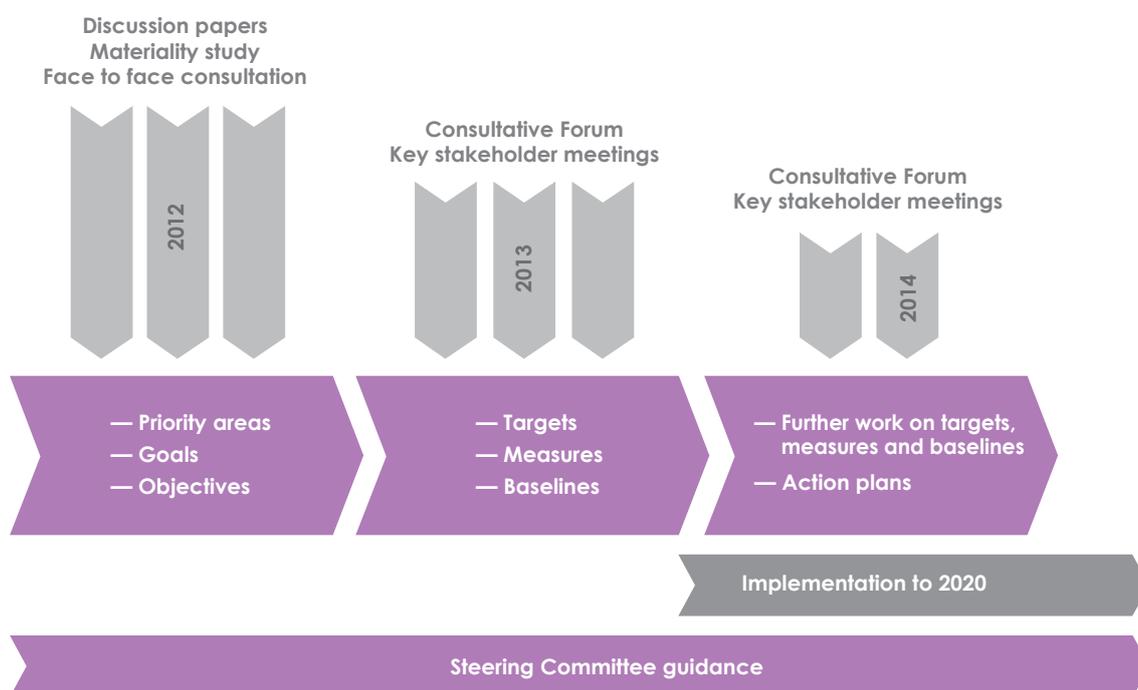


## 4. Framework development and governance

A process of broad-based stakeholder engagement was undertaken to develop an approach that meets the needs of industry but also stands up to outside scrutiny.

To incorporate multiple perspectives and expertise, dairy farmers and manufacturers, as well as customers, retailers, input suppliers and packaging companies, government, regulators, leading interest groups and other agricultural organisations were consulted within a strong governance and implementation structure (see Figure 5 for details of the governance structure).

**Figure 2. Framework development process**



The **Australian Dairy Industry Council (ADIC)**, the dairy industry's peak policy body, governs the ownership, development and implementation of the framework. **Australian Dairy Farmers (ADF)** and **Australian Dairy Products Federation (ADPF)** are the peak national dairy farmer and dairy manufacturer organisations respectively, and comprise the membership of the ADIC.

A **Steering Committee** made up of representatives from the farm and processing sectors, technical experts and specialist consultants has overseen development of the Framework and targets and the consultation process in line with the Council's direction. Dairy Australia has coordinated development and delivery of the framework.

A **Dairy Sustainability Consultative Forum** of experts was also established to promote two-way discussion on the industry's suggested targets to ensure they meet industry, community and customer needs.

In December 2012, the Australian Dairy Industry Sustainability Framework was endorsed by the Council, demonstrating strong alignment on sustainability across the dairy value chain.

**The Framework outlines our vision for sustainability: to enhance livelihoods, improve wellbeing and reduce our environmental impact so that Australia's dairy industry is recognised worldwide as a responsible, responsive and prosperous producer of healthy food.**

The Framework seeks to:

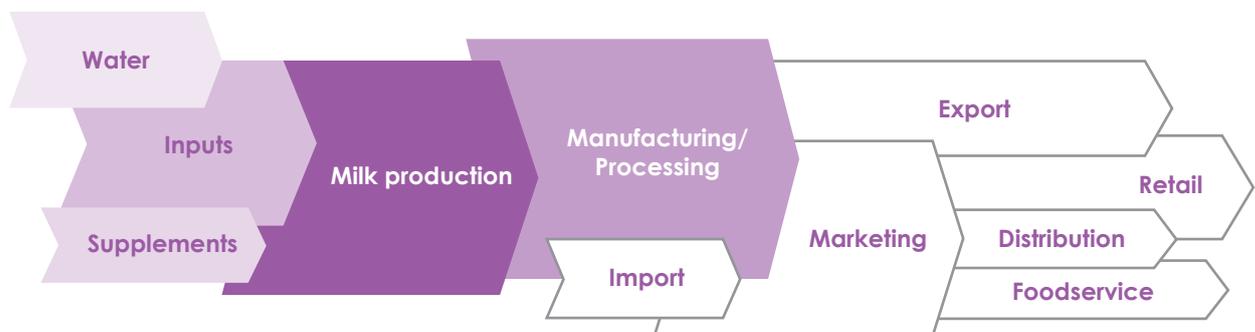
- Promote collective action for mutual benefit on matters most effectively addressed at the whole-of-industry level
- Promote the industry's value, contribution and reputation to customers and communities
- Offer opportunities for increased efficiency, as well as managing risk

The Framework builds on existing industry activity and sets the direction for continual improvement and further action, providing guidance to farmers, manufacturers and industry bodies on our shared priorities and commitments to be more sustainable.

It provides evidence that the dairy industry is committed to the community and the environment. It will also demonstrate to stakeholders the benefits of working together to help create shared value for our industry, our customers and the community.

The Framework incorporates the extended dairy value chain from feed production to manufacturing, retail and packaging. There is, however, an immediate focus on the areas where dairy farmers and processors have direct control.

**Figure 3. Framework focus**



### Framework principles

To guide development of the Framework, a set of principles was adopted to identify and prioritise issues, to determine the best approach to acting on them, to establish content and to engage stakeholders.

The principles are:

- Ethical behaviour
- Transparency and accountability
- Appreciation of stakeholder interests
- Competitive neutrality
- Collective action that delivers mutual benefit
- Inclusivity

Development of the Framework was informed by leading international sustainability frameworks including the *United Nations Global Compact*, the *Global Reporting Initiative*, the *Carbon Disclosure Project* and the *Sustainable Agriculture Initiative (SAI) Platform* and guided by established standards such as the *AccountAbility AA1000 Principles Standard*, *ISO26000*, and the *Sustainability Assessment of Food and Agriculture Systems (SAFA) Guidelines*.

## 5. Developing targets

Industry recognised that targets were needed to define what needs to be achieved and by when in order to reach its sustainability goals.

Working with sustainability experts Netbalance, Dairy Australia reviewed existing sustainability indicators and data associated with projects and initiatives being undertaken across the industry. National and international work, actions and targets were also reviewed.

A suite of proposed targets were drafted against the objectives of the Framework. Baseline data was gathered to set measures under each target which assess performance to 2020 and beyond.

The draft targets were scrutinised in a series of workshops and direct consultation that involved a wide range of stakeholders and technical specialists.

The targets and measures were endorsed by the Australian Dairy Industry Council in October 2013.

Not all targets and measures are finalised, but work is underway. This report details the current context for each target and the activities that are in progress to help support industry in meeting them.

**In 2014 outstanding targets and measures will be finalised, action plans to deliver on the targets confirmed, and implementation begun.**

**Targets** must be responsive to monitored performance and drive required practice change. They must be:

- Specific
- Measurable
- Attainable
- Relevant
- Time-bound



Members of the Dairy Sustainability Consultative Forum discuss targets and measures, June 2013

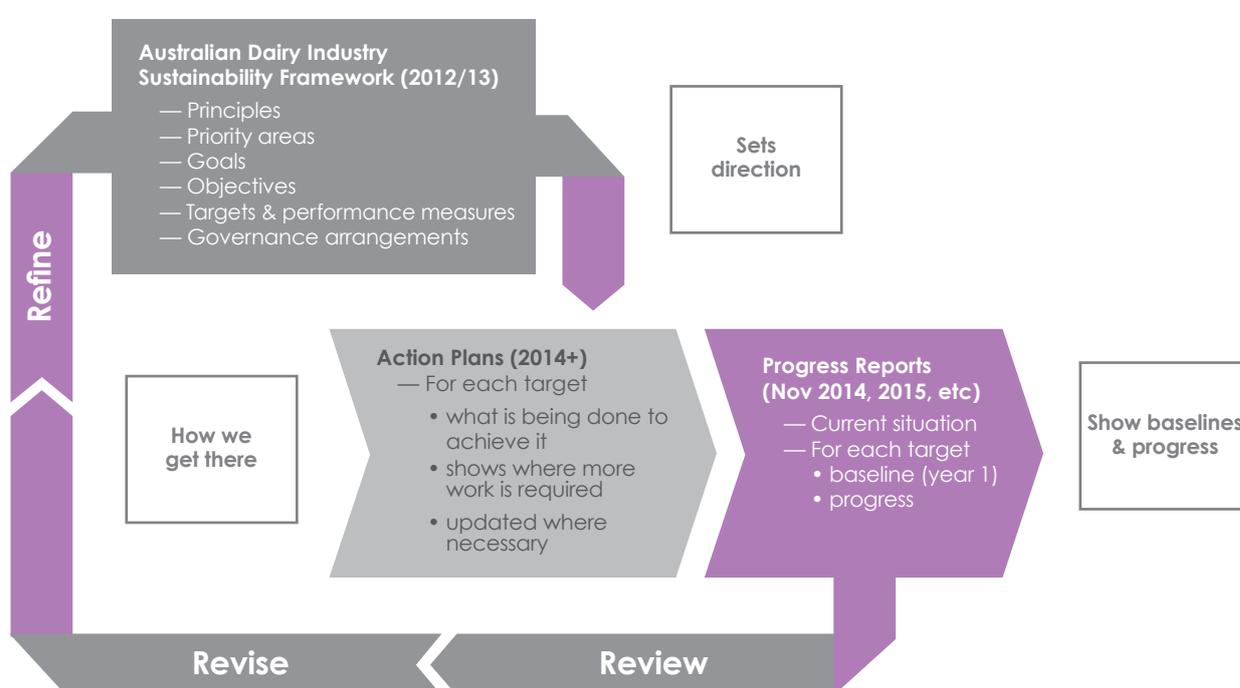
## 6. Report, review, revise, refine

The Framework and its targets are an ongoing commitment to continuous improvement. This Framework will evolve over time to embrace change as projects are implemented, progress is demonstrated, data techniques are modified, or new issues arise.

Progress made towards meeting sustainability goals will be regularly reviewed to ensure the Framework is dynamic, responsive and internationally credible. Consequently the industry is taking an adaptive, evolving approach to sustainability targets that monitors, reviews and reports progress.

Progress reports against targets are likely to be every two years, however, the availability of data will inform decisions around reporting frequency. As the targets and baselines are still being finalised in some areas, further progress will be reported at the end of 2014.

**Figure 4. Key components of the Australian Dairy Industry Sustainability Framework**



## 7. Stakeholder engagement

Integral to the development of the Framework and targets has been strong and active stakeholder consultation, based on the International Association for Public Participation (IAP2) model which articulates:

- The levels of engagement sought
- The promise we make to stakeholders

Facilitated by Dairy Australia, the engagement has, and will continue to involve:

- Individual briefings with key stakeholders
- Consultation meetings
- Feedback mechanisms
- Workshops
- The Dairy Sustainability Consultative Forum, a multidisciplinary body of experts with representatives from all key stakeholder groups. It was established and convened twice in 2013 to provide on-going support in the implementation of the Sustainability Framework and to collaborate with industry on developing robust targets and measures.



## Section B: Measuring Performance to 2020

This section outlines 11 targets identified against the objectives of each priority area within the Sustainability Framework. See Figure 1 for an overview of all targets.

For each target, we outline the current situation and measures against which to monitor the industry's progress to 2020. We also provide an outlook for activity surrounding this target.

Where targets and measures are not yet finalised, we outline how these gaps will be addressed.



**Priority area 1:**  
**Creating industry prosperity**

**Goal:**  
Improve the profitability and competitiveness of the dairy industry

**Objective:**

- Generating returns comparable with alternative uses of natural, human and capital resources
- Market development and market competitiveness
- Ongoing investment in and increased adoption of innovative solutions and effective use of new technologies

**Target 1:**  
**Increase the future competitiveness and profitability of the Australian dairy industry**

### Current performance

The Australian dairy industry on average has improved its competitiveness and profitability over the long term, but this varies greatly from region to region.

Dairy Australia's research, development and extension work over the past 30 years has aided this process, with an estimated **\$3.30 economic return for every \$1 invested** in animal genetics, feed systems, nutrient management, technological innovation, new products, manufacturing efficiency and market development.

Increased pasture utilisation and farm size, along with improved animal health and natural resource management, as well as improved management skills, have driven profitability on-farm.

Approximately **56% of Australian dairy farms are profitable**, based on an Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) three-year rolling average to 2012/13. A target to increase this by 5% is being considered but further work is needed to determine what is the appropriate target.

While it is not perfect, **ABARES' three-year rolling profitability average is currently the most robust way of measuring farm performance**. A rolling average allows for events outside the industry's control, including variable seasonal and market conditions, as well as for individual investment decisions that may cost money in the short term, but support profitability longer term.



Market share is another measurable indicator of industry competitiveness and profitability. In 2012/13 the Australian dairy industry produced **7% of global dairy product exports**, compared with 37% from New Zealand, 31% from the European Union and 11% from USA (*Australian Dairy Industry In Focus 2013*). This may be a useful indicator, but needs further investigation.

While **good sustainability practices can facilitate access to markets of choice and support profitability and competitiveness**, it is difficult to determine the exact contribution these individual elements make. This Sustainability Framework aims to demonstrate the industry's credentials in these areas and highlight industry targets against enhancing livelihoods, improving wellbeing and reducing environmental impact.

**Adopting new technologies and innovative management practices underpin future competitiveness and profitability.** Although there is no comprehensive measurement of this, the level of farm and manufacturing capital investment is a reasonable indicator that new technologies are being adopted:

In 2013, 40% of dairy farmers were planning capital investment in the next 12 months (National Dairy Farmer Survey (NDFS) 2013). Future surveys could investigate whether these planned investments occurred.

Significant investment plans were announced during 2013 by a number of the major dairy companies. Some examples of these include:

- In early 2013 Murray Goulburn (MG) announced a 10-year supply contract with Coles for fresh white drinking milk under Coles' private label in New South Wales and Victoria to commence from 1 July 2014. MG also reached an agreement to supply fresh milk under its own Devondale brand. To fulfil its new drinking milk supply agreement with Coles, MG is investing \$120 million in building two new state-of-the-art milk processing plants — one at Laverton in Melbourne and the other at Erskine Park in Sydney.
- Fonterra is investing \$6.5 million to upgrade cheese making equipment at its Stanhope (Vic) facility to increase hard and cheddar cheese production. The company is to spend a further \$6 million on upgrading its Tasmanian facilities at Spreyton and Wynyard to expand its processing and export capabilities.
- Lion Dairy and Drinks (LDD) has committed \$140 million to upgrade its cheese production facility at Havenview, Burnie (Tas) in a move which will lead to the company consolidating its cheese production from the Kings Meadow (Tas) and Simpson (Vic) plants by the end of 2013.
- LDD is investing \$50 million to double capacity at its Morwell (Vic) fresh dairy product plant, upgrading cooling, packing and logistics facilities.

There have also been a number of smaller investment programs and dairy company developments announced during the year. For further details, see the Industry Value Chain section of the Dairy 2013 Situation & Outlook report available from [www.dairyaustralia.com.au](http://www.dairyaustralia.com.au)

Innovation in dairy products in line with consumer demand also helps to increase dairy's future competitiveness and profitability. *Dairy Innovation Australia Limited* (DIAL) is an industry-owned innovation hub for dairy manufacturing, providing integrated, responsive and cost-effective dairy manufacturing research and development, as well as services which support product development.



## Performance measures

The Framework outlines five performance measures of industry competitiveness and profitability. Baseline data is included where it has been established. Further baseline data is being investigated.

### 1.1 [X% increase] in the number of profitable dairy farms

(5% increase on a rolling 5 year average is a nominal target — to be reviewed when more information becomes available)

**Baseline data:** ABARES data shows 56% of dairy farms are profitable based on a 3 year rolling average to 2012/13

### 1.2 Market preference for buying Australian dairy products (measure to be set)

**Baseline data:** Possibly, share of global milk production by volume or value, compared to top three international competitors (NZ, EU and US). In 2012 Australian dairy industry had 7% share of global dairy exports by volume, versus 37% for NZ, 31% for EU and 11% for USA. Further work is required to investigate options.

### 1.3 Ensuring sustainability criteria (e.g. carbon, animal welfare, environmental impact) do not impede market access (measure to be set)

### 1.4 Increase adoption of new technologies and innovative management practices within the dairy industry

**Baseline data:** We know that in 2013, 40% of dairy farmers reported they were planning capital investment, but further baseline data is required, including capturing dairy company activities in this area.

### 1.5 Provide consumers with greater choice and access to a variety of dairy products and/or ingredients to meet their specific nutritional needs (measure to be set)

## Further work to refine targets, measures and baselines

Dairy Australia is investigating data sources that give a more accurate indication of dairy farm profitability, including on-farm data relating to return on assets, cash basis accounting, and profitability after debt.

Specific initiatives being considered include:

- Reviewing performance of farms in other sectors (nationally and internationally — for possible benchmarking).
- Establishment of trend lines for profitability using rolling 3 or 5 year averages.
- Ways to desensitize profitability from price shifts.
- Investigation of a possible dairy profitability index

Some possible initiatives being considered for the other performance measures include:

- A benchmarking study to gauge export and domestic customer preference for Australian dairy products, including reasons for preference and how this has changed.
- Measurement of new technology adoption and innovative management practices, beyond the investment-based proxies currently available.
- Using the National Dairy Farmer Survey to compare planned and actual investment on a rolling average to reflect volatility in returns.
- Review the current statistics on dairy products sold and the range of ingredients produced for both the domestic and export markets to support the development of a target and baseline for dairy product innovation.
- Definition of an appropriate performance measure around sustainability and its support for access to markets of choice (retail and food service).



The possibility of a performance measure related to the market preference for Australian dairy products is also being investigated. Capturing the value of market share will help to recognise the non-financial values of Australian dairy products, such as quality, safety, environment and nutrition.

Recognition that market conditions, which are influenced by Free Trade Agreements and market access conditions, impact the industry's profitability is important but it is unlikely this can be reflected through a numerical target.

### **Sustainability at work — Tracking genetic merit for profitability**

A tool developed by the Australian Dairy Herd Improvement Scheme (ADHIS) enables dairy farmers to track the impact of breeding decisions and changes in their herd's genetic merit over time.

The Genetic Progress Report allows dairy farmers to compare their herd's genetic merit with the average and top 10% of their breed in the country.

The report includes a summary of 10-year trends, including traits that have improved, remained stable and reduced in the herd. It also includes indicators of the herd's genetic merit for profitability and its rank out of all Australian herd recorded herds for the breed.

Seven graphs track changes in the herd's genetic changes since 2001 for profit, type, longevity, mastitis resistance, fertility, protein and fat.

Once specific traits have been identified, the *Good Bulls Guide* can be used to identify suitable sires.

The report is generated from herd test data, and is available to all farmers who herd record.

In 2012/13, ADHIS helped improve the genetic merit of the national herd by an average of \$10 profit per cow. For more information, visit [www.adhis.com.au](http://www.adhis.com.au)





## Priority area 2: Supporting communities

### Goal:

Enhance the resilience and prosperity of communities

### Objective:

- Increasing dairy's contribution to economic outcomes at local, regional, state and national levels
- Building capacity to embrace change, improving uptake of new technology and alternative practices; building resilience to climate variability

## Target 2: Increase the resilience and prosperity of dairy communities

### Current performance

With a farmgate value of \$4 billion, the dairy industry enriches regional communities. An estimated 43,000 Australians are directly employed in the dairy sector, and a further 100,000 in related service industries. Many of these jobs are in regional areas. **In some regions, dairy (directly or indirectly) accounts for 40% of jobs.** Regional communities are home to one in eight Australians.

The contribution of the industry reaches far beyond economics. **Dairy people are active participants in their local communities** and most **dairy manufacturers have community contribution strategies in place**, for example, participation in Foodbank and sponsorship of local activities and clubs.

Better understanding of the overall economic contribution of the industry will assist in creating a positive operating environment for dairy in local regions. This understanding should help inform regional business growth and investment strategies produced by local councils and state governments.

Work is already being undertaken to lift the profile of dairy through Dairy Australia's *Legendairy program*, launched in 2013. The program celebrates Australia's dairy farmers, the quality dairy foods they produce and their contribution to the Australian economy. It aims to enhance the reputation of the industry in the minds of consumers and influential individuals and organisations, thereby contributing to increased consumption of dairy products and a positive operating environment for the industry.

In 2013, an estimated 71% of consumers agreed the dairy industry was an essential part of the community (DMW8 2013) and 76% of dairy farmers believed that people in their region appreciate their role in the community (NDFS 2013).



## Performance measures

The Framework seeks to measure dairy's support of communities. Baseline data is included where it has been established. Further baseline data is being investigated.

**2.1 Intent: to set a measure around the contribution that the dairy industry makes to the economy of dairy regions**

**2.2 The contribution and importance of dairy is recognised in relevant local and state government strategies (especially growth and investment strategies)**

**2.3 Increase consumers' and dairy communities' recognition of the value of the dairy industry to local communities through a:**

- **10% increase** in number of consumers who agree the dairy industry is an essential part of their community

**Baseline data:** 71% of consumers agree the dairy industry is an essential part of their community (DMW8 2013)

- **15% increase** in the number of dairy farmers who agree that "people in my region appreciate the role that dairy farmers like myself play in our community"

**Baseline data:** 76% of dairy farmers agree that "people in my region appreciate the role that dairy farmers like myself play in our community" (NDFS 2013)

## Further work to refine targets, measures and baselines

More work will now be undertaken to develop baseline information to assess performance against the measures established under this target.

We propose an economic study into the Gross Domestic Product (GDP) contribution that dairy makes to its regions, individually and nationally across all dairy regions. When the study is finalised, the target can be refined and measures set to track performance, considering direct contribution, local multiplier effects and comparison to other industries.

Measuring the recognition of the importance of dairy in relevant local and state government strategies is difficult. Suggestions for consideration include:

- Increased number of dairy advocates in local regions, potentially through the Legendairy program
- Positive dairy mentions in local media
- Dairy mentioned or considered in relevant local and state government strategies

This work will be progressed in 2014 and reported in the next progress report.



### Sustainability at work — Milk companies get behind food rescue initiative

Over two years, six of Australia's leading companies, working with the Federal Government and others, donated more than 3.5 million litres of fresh and UHT milk to food rescue and emergency relief charity, Foodbank.

Their support was recognised in September 2013 at an event hosted by Victorian Minister for Agriculture Peter Walsh at Foodbank's Victorian Distribution Centre.

Approximately 2500 charities and community groups distributed the milk to Australians in need, 35% of whom were located in rural and regional locations.

Speaking to *Australian Dairyfarmer Magazine*, Minister Walsh said: "The dairy industry makes a significant contribution to Victoria's economy, and competition between dairy companies is very strong.

"It is terrific to see six companies put business interests aside and work together on a project like Foodbank to help ensure our most vulnerable don't miss out on the nutrition benefits that dairy products provide."

The companies involved include Bega Cheese, Fonterra Australia, Lion, Parmalat Australia, Murray Goulburn and Warrnambool Cheese & Butter.

Foodbank provides enough food for 32 million meals on an annual basis. Dairy products are valued due to their nutritional content and their versatility.



(L to R): Robert Poole (Murray Goulburn), Victorian Minister for Agriculture Peter Walsh, Foodbank CEO John Webster, Peter Jones (Fonterra), Anita Russell (Flight Centre Foundation), Rick Cross (Bega Cheese). Source: Foodbank Australia



### Priority area 3: Investing in dairy people

#### Goal:

Enhance the expertise of and prospects for our people

#### Objective:

- Our people have a safe and healthy work environment with the skills required to perform their roles competently

### Target 3: Provide a safe work environment for all dairy workers

#### Current performance

Improving safety for workers is a major industry priority with a range of programs and systems in place in our farms, factories and offices. The industry's objective is that all our people have a safe and healthy work environment with the skills required to perform their roles competently.

Safe Work Australia collates data for the Lost Time Injury Frequency Rate (LTIFR) for the dairy cattle farming and dairy product manufacturing sectors annually. **LTIFR is defined as claims with one week or more time lost, per million hours worked. In 2011, the dairy cattle farming LTIFR was 6.1 per million hours worked. The dairy product manufacturing LTIFR was 9.4 per million hours worked.** These figures represent a reduction in LTIFR over the last decade of 57% for dairy farms and 44% for product manufacturing but further improvement is possible.

Agriculture is one of the target industries in the Australian Work Health and Safety Strategy 2012/22 due to the high number of serious injury and fatality rates. This strategy targets a 30% reduction in incidence of claims resulting in one or more weeks off work by 2022, against 2012 figures. The dairy industry Sustainability Framework has set its target in line with this.

The **industry has a goal of zero workplace fatalities**. By law, all dairy workers must undertake occupational health and safety (OH&S) training. Manufacturers and farmers provide evidence of training as part of their OH&S commitments.

**All Australian dairy manufacturers have OH&S training for their staff.** Many have their own clear targets around reducing and achieving LTIFR and zero fatalities.

Good OH&S practices are also a consideration in Dairy Australia's *People in Dairy* program.



### Performance measures

The ways in which the Framework measures a safe work environment are outlined below. Baseline data is included where it has been established. Further baseline data is being investigated.

#### 3.1 100% on-farm and dairy processor workers completed OH&S training (on-going compliance).

**Baseline data:** All dairy companies have OH&S programs in place

#### 3.2 30% reduction in Lost Time Injury Frequency Rate (LTIFR)

**Baseline data:** LTIFR of 6.1 per million hours worked in dairy cattle farming for 2010/11.  
LTIFR of 9.4 per million hours worked in dairy product manufacturing for 2010/11

#### 3.3 Zero workplace fatalities

### Further work to refine targets, measures and baselines

Information on fatalities in the dairy sector will be sought from Safe Work Australia to provide baseline data for this critical target. On-going communication on safe practices, as well as workshops and recognition of good practice, will contribute to achieving the reduced LTIFR.





### Priority area 3: Investing in dairy people

#### Goal:

Enhance the expertise of and prospects for our people

#### Objective:

- Building skills to deliver the sustainability objectives
- Planning for succession and attracting, developing and retaining talented people

### Target 4: Attract, develop and retain a skilled and motivated workforce

#### Current performance

To be sustainable, Australian dairy needs people that want to work and invest in the industry for the long-term. However, while attracting, developing and retaining a skilled and motivated workforce is essential for a dairy businesses to operate effectively, this remains a challenge for industry.

Attracting a wide range of suitable applicants increases the chance of attracting the right person for the right job. In 2013, 56% of dairy farms reported to have found suitable applicants for jobs, according to the NDFS 2013. Currently, no existing baseline information has been collected for manufacturers around the availability of suitable candidates. The NDFS 2013 indicated that 78% of dairy farmers believe the dairy industry provides a range of rewarding careers.

The *National Centre for Dairy Education Australia* (NCDEA) provides training and qualifications that focus on the skills required to operate or manage dairy farm and food processing businesses, as well as specialist technical services and leadership training. NCDEA provides competency-based education so participation in courses focuses on outcomes, not just attendance or completion.

Objectives of the NCDEA include reduced employee turnover and up-skilling of the industry. In 2012, over 2100 students were engaged in training through the NCDEA — a 15% increase on the previous year. The national alliance of 11 delivery partners allows training to occur in each dairy region around Australia, via one nationally accredited curriculum.

The industry also has access to a large range of extension activity primarily through Dairy Australia and state governments. The main areas of focus for extension activities are feedbase and nutrition, animal performance, natural resource management and farm business management.



Around 20% of dairy farmers participated in formal extension activities in 2012. Dairy Australia is monitoring how participation leads to improved practices on farm.

Specific projects directed at attracting, developing and retaining a suitably skilled workforce include:

- Attracting and retaining people ([Cows Create Careers](#), [Young Dairy Network Australia](#))
- Education program delivery and support
- Improved people management ([The People in Dairy](#))
- Workforce strategy, planning and action

[Dairy Innovation Australia Limited \(DIAL\)](#) also delivers a student program, while the [Dairy Futures Cooperative Research Centre](#) is focused on building research capacity for the future.

Dairy Australia's **Upskilling Manufacturing Workforce Using Global Networking** project upskills the dairy manufacturing workforce through webinars and seminars. Each year, global experts are invited to Australia to participate in product award judging, and to deliver free seminars and webinars to industry. Feedback has been extremely positive with strong participation and attendance levels.

The industry seeks to retain experienced people as valued employees. Farm data collected in the National Dairy Farmer Survey 2011 showed 34% of employees joined their employer in the last 12 months and 17% of employees were new to the dairy industry.

Transition or succession planning can present particular issues for farming families. Planning should meet the needs of the business and its workers, and ensure a viable and sustainable business for the future, especially where the goal is to retain a dairy farm for the long term. Dairy Australia has succession planning programs for dairy farmers.

## Performance measures

The Framework measures investment in dairy people. Baseline data is included where it has been established. Further baseline data is being investigated.

### 4.1 30% increase in the number of suitable applicants for dairy industry jobs

**Baseline:** 56% of dairy farms reported to have found suitable applicants for jobs (NDFS 2013). Manufacturer baseline to be determined

### 4.2 Increase participation in development activities — 50% increase in education and 100% increase in extension activities

**Baseline:** Participation in extension activities was 20% in 2012. Participation in education activities to be determined.

### 4.3 Retain an experienced and motivated dairy workforce — 20% increase in the number of experienced employees retained

### 4.4 50% of dairy farmers have a well-developed business transition plan



### Further work to refine targets, measures and baselines

Information from dairy manufacturers' human resources departments will be sought in 2014 to set a baseline for measurement of manufacturers' ability to attract suitable applicants. The impact of rural versus urban job locations will also be considered. The Dairy Monitor Survey captures information on perceptions of the attractiveness of the dairy industry as an employer that in turn impacts on the number of suitable applicants, and may also be a useful measure.

Further work is required to better define the number of experienced employees retained in the industry. Manufacturers' human resources departments may have information on retention of employees or a survey may be required. Targeted farmer survey questions may provide increased clarification around this measure. It would also be useful to understand if people stay in the dairy industry even if they leave a specific dairy position.

Information on farm business transition planning, possibly through the National Dairy Farmer Survey, is required to understand current practices, and establish baselines against this measure.

Further work that compares the dairy industry with other agricultural industries regarding attracting, developing and retaining a skilled and motivated workforce will also be undertaken in 2014.

### Sustainability at work — Dairy farmers drive employment initiative

Dairy Australia launched the first trial of the Employment Starter Kit initiative — or ESKi — this year. Research shows that one of the key issues in attracting and retaining people on dairy farms are the employment practices being used. In response, workforce planning and action steering committees were formed at WestVic Dairy and DairyTas with a primary focus on developing actions and supporting the dairy industry to attract the skilled people it requires.

ESKi is a user-friendly employer kit that details all of the mandatory requirements for dairy businesses that employ staff, as well as techniques for improving the employment experience on farms.

For more information, visit [www.thepeopleindairy.org.au](http://www.thepeopleindairy.org.au)



The WestVic Dairy Workforce Planning and Action Steering Committee:  
(L to R) Gavan Mathieson, Oonagh Kilpatrick, Karen Hart, Jocelyn Bevin,  
Bill Youl, Chris Hibburt, John Dalton.



## Priority area 4: Ensuring health and safety

### Goal:

Produce safe dairy foods and ingredients

### Objective:

- All dairy products and ingredients sold are 100% safe

**Target 5:  
All dairy products  
and ingredients  
sold are safe**

### Current performance

The Australian dairy industry has comprehensive systems and processes to ensure all dairy products and ingredients sold are safe. Independent state-based regulatory bodies ensure mandatory national food safety standards are met. This includes licensing all dairy premises and verifying that the food safety programs are documented and address potential food safety risks. **Compliance with the documented food safety program is verified at audit and is a condition of holding a valid dairy licence for both farms and manufacturing premises.**

The **Australian Milk Residue Analysis (AMRA) Survey** is an independent national Government co-ordinated monitoring program for potential agricultural and veterinary chemical residues, and environmental contaminants in the Australian milk supply. The survey provides evidence that the Australian dairy industry's food safety system and quality assurance programs effectively manage the food safety and trade related risks associated with the use of agvet chemicals.

The survey also meets the export requirements of the Department of Agriculture under the Export Control (Milk and Milk Products) Orders 2005 and provides assurance to importing countries that Australian dairy commodities comply with importing country requirements with respect to managing the risks from the use of agvet chemicals. In 2012, there were no instances of non-compliance. For more information, visit [Dairy Australia](http://DairyAustralia.com.au).



**Dairy companies have individual quality assurance systems.** Where any issues are identified that may put consumer health at risk, the product manufacturer voluntarily recalls products. In 2012 there were seven product recalls as reported by Product Safety Recalls Australia.

Consumer sentiment about the safety of dairy products is tracked in the annual Dairy Monitor Survey. **In 2013, 65% of Australian consumers agreed that Australia produces safe dairy products, and 77 % of consumers agreed that Australia produces high quality dairy products.**

### Performance measures

The ways in which the Framework measures the safety of dairy products and ingredients are outlined below.

#### 5.1 Zero non-compliant chemical residuals found during the AMRA Survey

**Baseline data:** *The AMRA Survey results for 2011/12 had zero non-compliances*

#### 5.2 Zero product recalls due to food contamination (as reported by Product Safety Recalls Australia)

**Baseline data:** *There were 7 product recalls in 2012 as reported by Product Safety Recalls Australia*

#### 5.3 15% increase in the number of consumers who agree Australia produces high quality and safe dairy products

**Baseline data:** *67% of consumers agree Australia produces safe dairy products (DMW8 2013). 77% of consumers agree Australia produces high quality dairy products (DMW8 2013)*

### Further work to refine targets, measures and baselines

Dairy companies, in conjunction with regulators, continually review supply chain quality assurance programs to address any quality assurance or food safety concerns.

The risk profile of various agricultural, veterinary and environmental contaminants is reviewed each year by government and industry. The review focuses on chemical use patterns in the Australian dairy industry, any emerging chemical residue risks and potential trends. Specific targeted programs are set up where necessary. The review also identifies areas for improvement within the AMRA Survey. The AMRA Survey is then revised in line with the review and presented to government for acceptance before implementation.



## Priority area 5: Maximising nutrition

### Goal:

Provide valued nutritional products that contribute to good community health outcomes

### Objective:

- Dairy products being recognised, valued and increasingly consumed as an essential part of a healthy diet

## Target 6: Dairy contributes to improved health outcomes for Australian communities

### Current performance

It is estimated that \$2 billion can be saved from the national health care program if all Australians consumed the recommended daily dairy serves of milk, cheese and yogurt<sup>2</sup>.

The industry has been proactive in investigating the nutritional value of dairy products, and actively communicating this to the community through a range of programs. Under the Legendairy communications platform specific projects are aimed at increasing dairy consumption in five to 12-year-olds, young adults 18–35 years and adults over 50, through channels including the media, online, health professionals, schools and sporting organisations. Other projects have focused on generating scientific support for the health and nutrition benefits of dairy and developing new products with weight control and oral health benefits.

The majority of Australians recognise that dairy is an important part of healthy eating, with **72% of Australians agreeing that dairy foods are essential for good health and wellbeing** (DMW8 2013). Despite this, most Australians do not consume enough milk, yogurt, cheese and/or alternatives. Current data indicates that nine out of 10 women, seven out of 10 men (1995 National Nutrition Survey), and almost six out of 10 children aged 2–16 years (2007 National Children's Nutrition Survey) do not eat the recommended daily serves.

National policy makers also recognise the health benefits of dairy, evidenced by recommendations on daily serves of milk, cheese and yogurt in the Australian Dietary Guidelines.

[2] JC Doidge and L Segal, "Gospodarevskaya E. Attributable risk analysis reveals potential healthcare savings from increased consumption of dairy products". *Journal of Nutrition*, 2012;142(9):1772–1780.



The new Guidelines, released in February 2013 by the National Health and Medical Research Council (NH&MRC), are the result of a four-year review of the previous 2003 Guidelines. The Guidelines are based on whole foods rather than nutrients and provide up-to-date advice about the amount and types of foods we need to eat for health and wellbeing. They form the basis of Australian nutrition policy and dietary healthy eating messages, from school canteen guidelines to food labelling to health professional dietary advice.

Dairy Australia, on behalf of the dairy industry, participated throughout the consultation process.

According to the new Guidelines, evidence for the health benefits of dairy food consumption has strengthened since 2003: “Consumption of milk, yogurt and cheese can protect us against heart disease and stroke, can reduce our risk of high blood pressure and some cancers, may reduce our risk of Type 2 diabetes and may contribute to stronger bones”.

As a result of the updated research evidence, the recommended daily serves for milk, yogurt, cheese and/or dairy alternatives has increased for most of the population.

To support good health outcomes, **individual manufacturers are investing in development of dairy products with added nutritional benefits**. For example, Parmalat’s (Paul’s) SMART milk — with added vitamins and nutrients. Yogurts have probiotic starter cultures to aid gut health. Danone has a commitment to ensure their product portfolio meets every day and special nutritional needs.

## Performance measures

The Framework measures the recognition of dairy as part of a healthy diet and consumption against recommended intake. Baseline data is included where it has been established. Further baseline data is being investigated.

### 6.1 Improve recognition that dairy (milk, cheese and yogurt) is a key element of a healthy diet

- a. Improve consumers’ perception of the health and nutrition benefits of dairy foods
  - increase the % of individuals who agree “Dairy foods are essential for good health and wellbeing” from 72% to 85%
  - decrease the % of individuals who agree “I’m concerned consuming dairy foods will increase my weight” from 32% to 20%

**Baseline data:** DMW8 2013

- b. NH&MRC Australian Dietary Guidelines continue to recommend milk, cheese and yogurt as part of a healthy diet

**Baseline data:** Measured by dairy maintaining its recognition as core food in the Australian Dietary Guidelines.

### 6.2 [X%] increase in the proportion of Australians meeting recommended daily serves for dairy. Target to be set once new nutrition data available.



### Further work to refine targets, measures and baselines

The available national dairy consumption data for adults is from 1995 and for children from 2007 and therefore unlikely to reflect current eating habits. In 2014, updated national data on nutrition, including dairy consumption, will become available from the ABS Australian Health Survey which aims to provide a better understanding of the health of people living in Australia.

This information will be used to set baselines for measurement of performance against daily dairy consumption targets recommended in the Australian Dietary Guidelines. As the survey questions relate to 'dairy and alternatives' (i.e. includes non-dairy proteins such as soy), some further analysis of the new data may be required. Once these baselines are understood, performance measures for age specific percentage improvements can be set for key target audiences.

### Sustainability at work — Understanding dairy benefits for elderly Australians

Australia's population is ageing with more than 3.2 million people over 65 (Australian Bureau of Statistics (ABS), 2012). With this number growing rapidly, there is a greater need than ever before for cost effective measures that improve the health of older people and reduce their healthcare costs.



Existing research suggests that increasing older people's intake of dairy foods such as milk, yogurt and cheese is one such measure. However, strong evidence of benefit is needed to achieve policy change.

To fill the evidence gap, Dairy Australia has formed a partnership with international dairy organisations to fund a major clinical trial investigating the effects of increased dairy consumption among older people.

The trial will involve 60 aged care facilities across Australia, half of which will serve a dairy-enhanced diet for two years, and half of which will continue with their usual diet. Health outcomes being assessed include fractures, falls, mortality, measures related to cardiovascular disease, muscle maintenance and function, and malnutrition.



## Priority area 6: Caring for our animals

### Goal:

Deliver best care for our animals

### Objective:

- All dairy farmers meeting animal health and welfare responsibilities and adopting industry recommended practices
- All dairy farmers ensuring animal husbandry practices maximise health and welfare outcomes

## Target 7: Provide best care for all animals

### Current performance

Australian dairy farmers are committed to the health and wellbeing of their animals. Their cows are their livelihood and caring for them is a farmer's first responsibility. **To deliver safe, high quality dairy products, dairy farmers must practice sound animal husbandry and keep their animals in peak condition.** As an industry, the vision for animal welfare is that "every dairy animal is well cared for".

Animal welfare practices underpin the reputation and integrity of the dairy industry. Endorsed by Australian Dairy Farmers Ltd, the National Dairy Industry Animal Welfare Strategy identifies key animal husbandry focus areas to achieve high standards of animal welfare which include tail docking, calving induction, disbudding/dehorning, lameness, caring for sick cows and calf management.

**Every two years, Dairy Australia conducts an animal husbandry survey with farmers to foster and encourage responsible animal husbandry, and to monitor performance in key priority areas.** While self-reported, survey results are validated through independent mechanisms (e.g. focus groups). The results of the 2012 Animal Husbandry Survey are included as a basis for measuring performance for this target.

Dairy Australia's initiatives in animal husbandry and welfare change management address these industry priorities. The aim of the work is to develop and implement strategies to improve the care of animals on farm. Programs are delivered through the NCDEA, Regional Development Programs and education materials accessible via the Dairy Australia website.

Specific Dairy Australia projects include the **mastitis prevention initiative, Countdown; Healthy Hooves, which addresses issues that cause lameness; InCalf, which improves fertility; and a Rearing Healthy Calves project.**



Legislation in each state, based on Model Codes of Practice or national animal welfare standards, sets minimum requirements for welfare of livestock on farms. The majority of dairy farmers exceed the legislated standards and seek to give the best possible care to their animals. An estimated 92% of dairy farmers are aware of the Codes of Practices for the Welfare of Cattle. A national Animal Welfare Standard for Livestock Transport has been established and a national Animal Welfare Standard for Cattle is expected to be finalised in 2014.

An estimated 60% of consumers believe dairy farmers do a good job in caring for their animals (DMW8 2013).

### Performance measures

The ways in which the Framework measures the extent to which farmers are adhering to good animal husbandry practices are outlined below. Baseline data is included where it has been established. Further baseline data is being investigated.

#### 7.1 100% of industry complying with legislated animal welfare standards

**Baseline data:** 92% of dairy farmers were aware of the Codes of Practice for the Welfare of Cattle (Animal Husbandry Survey 2012)

#### 7.2 All of industry adopting relevant industry recommended practices for animal care

**Baseline data:** From the Animal Husbandry Survey 2012: more than 80% of Australian dairy farmers do not dock the tails of their cows; 80% of dairy farmers do not use calving induction as a farm management tool; 57% of farmers disbud calves prior to two months; 87% of dairy farms have an effective lameness strategy in place; 94% of dairy farms have infrastructure in place to keep cows cool during hot weather

#### 7.3 25% increase in the number of consumers who believe dairy farmers do a good job caring for animals

**Baseline data:** 60% of consumers believe dairy farmers do a good job caring for their animals (DMW8 2013)

### Further work to refine targets, measures and baselines



The industry is committed to further enhancing its record for animal care and in doing so, maintaining a productive and healthy herd.

The Animal Husbandry Survey 2012 indicates that some farmers are not implementing industry recommended practice. The industry will continue training and extension in animal husbandry including initiatives in nutrition, mastitis control, reproductive management, farm risk management, calf management and rearing, and lameness.

New national Animal Welfare Standards for Cattle are under development and supported by the dairy industry. All dairy farmers will need to comply fully with these standards when implemented.

The dairy industry will continue to actively communicate with dairy farmers to ensure they understand their responsibilities with regard to animal welfare, and have the knowledge to deliver best care to their animals.



## Reducing environmental impact

### Priority area 7: Minimising our environmental footprint

#### Goal:

Maximise resource use efficiency

#### Objective:

- Improving nutrient, land and water management
- Reducing greenhouse gas emissions

### Target 8: Improve nutrient, land and water management

#### Current performance

The Australian dairy industry has a long history of improving natural resource management on farms. **Dairy farmers are environmental caretakers.** They are committed to managing land and water responsibly, reducing greenhouse gas emissions and protecting our natural resources for future generations. Currently **79% of dairy farmers agree undertaking an environmental management program is of value to their business**, according to the 2013 NDFS. In particular, the industry is taking action on excluding stock from waterways, nutrient management, reducing water use and biodiversity.

Excluding stock from waterways protects riparian vegetation and improves water quality. The Dairying for Tomorrow 2012 Survey indicates that 73% of dairy farmers have some waterways fenced off and 34% of dairy farmers have all waterways fenced. Of course, not all dairy farms have waterways and in some cases they cannot be fenced due to farm geography and other considerations.

There is an increasing understanding throughout the industry not only of the link between nutrient use on farm and the implications for downstream water quality, but also of the input efficiency gains available for farmers from more efficient use of nutrients. **An estimated 30% of farmers have nutrient management plans in place** (Dairying for Tomorrow 2012), with more than 80% undertaking soil testing before applying fertilisers.

**A number of support organisations provide education programs and information across the industry seeking to highlight the benefits of nutrient management including state governments, Landcare, and Catchment Management Authorities.** The vast majority of dairy farmers are active members of Landcare.



Dairy Australia also has a number of programs and initiatives focused on providing the industry with the appropriate information to implement nutrient management. For example, the **On Farm Nutrient Management Program** (Fert\$mart) aims to have 60% of Australian dairy farmers demonstrating industry nutrient management good practice by 2018.

Due to the industry's experience with drought, much work has been done to assist dairy farmers to better manage their water resources and minimise their water use. Automated irrigation assists in saving water on dairy farms and already 47% of farms have some form of automation. Dairy farmers in the Goulburn Murray region have also benefited from the Northern Irrigation Renewal Project, funded by State and Federal governments, and aimed at improving the efficiency of irrigation assets in the region. **Around 50% of dairy farmers recycle some water** according to information from the DairySAT program.

## Performance measures

The Framework measures the extent to which farmers are minimising their environmental footprint through **improving nutrient, land and water management**.

### 8.1 90% of stock are excluded from waterways

**Baseline data:** 73% of dairy farmers have some waterways fenced; 34% of dairy farmers have all waterways fenced.

### 8.2 80% of farmers implement nutrient management plans

**Baseline data:** 30% of farms had nutrient plans (Dairying for Tomorrow Survey 2012), with more than 80% undertaking soil tests before applying fertilisers

### 8.3 80% of dairy farms with irrigation having implemented some level of irrigation automation

**Baseline data:** 47% of farms have at least some irrigation system automation (2012 Dairying for Tomorrow Survey 2012)

### 8.4 80% of dairy farms managing some land for conservation and biodiversity

**Baseline data:** 47% of farms have areas on farm managed for conservation (Dairying for Tomorrow Survey 2012)

### 8.5 All dairy farmers actively managing noxious weeds

**Baseline data:** 37% of farmers identified noxious weeds as a land management issue (Dairying for Tomorrow Survey 2012)

### 8.6 80% of farmers have practices to recycle water on farm

**Baseline data:** Around 50% of dairy farmers recycle some water (DairySAT)



## Further work to refine targets, measures and baselines

The proportion of stock excluded from waterways is not currently measured so the potential for improvement of performance in this area cannot yet be assessed. A measure and associated baseline data for the exclusion of stock requires development, potentially through the Dairying for Tomorrow Survey, or the development of a method to estimate stock exclusion based on the proportion of fencing off already collected in the same survey. As an interim baseline measure, the proportion of waterways fenced (measured by Dairying for Tomorrow Survey 2012) will be used as a proxy indicator of progress.

Although there has been significant reduction in water use on dairy farms — largely driven by severe drought conditions — more can be done across the industry. Dairy Australia's Improving water use efficiency program aims to have 60% of 1600 target farms adopt water saving technology and to gain an average water saving of 10% of entitlements held.

Increased recycling of shed water represents an opportunity for water savings for farmers in lower rainfall areas. A measure and associated baseline for the proportion of dairy farmers with shed-water re-use systems requires development, for example by adding questions to the Dairying for Tomorrow Survey. To develop a target that is meaningful in all rainfall areas, more work may need to be done around measurement of water saving practices.

## Sustainability at work — Farmers score on natural resource management

*DairySAT* is an online environmental performance tool developed by dairy farmers for dairy farmers. It provides a practical framework for farmers to identify the natural resource management issues within their business, benchmark their own performance against industry best practice, and take steps to improve their performance.

Initially implemented in 2004, DairySAT has evolved to become a key part of Australian dairy industry's natural resource management strategy *Dairying for Tomorrow*. The use of DairySAT is the starting point for the majority of industry natural resource management and climate change extension activities.

The tool covers 10 pre-farm gate environmental topic areas: soils, fertilisers, effluent management, irrigation, greenhouse gas emissions, biodiversity, energy and water, pests and weeds, chemicals and farm wastes. Farmers are prompted to consider a range of management practices and determine where they fit along a spectrum of management practices from 'below acceptable', 'good' to 'innovative'.

DairySAT has been successfully used as a farmer-friendly beginning to longer term engagement through a wide range of projects such as Fert\$mart, Core4 programs, Farmer Targets For Change and milk company sustainability programs.

Around 47% of farms have areas managed for biodiversity (Dairying for Tomorrow Survey 2012).





## Priority area 7: Minimising our environmental footprint

### Goal:

Maximise resource use efficiency

### Objective:

- Improving nutrient, land and water management
- Reducing greenhouse gas emissions

**Target 9:  
Reduce the consumptive  
water intensity of dairy  
manufacturers by 20%**

### Current performance

As one component of the dairy supply chain, the Australian manufacturing sector has been reporting on its collective environmental performance, including water use, since 2005, through the Dairy Manufacturers Sustainability Council (DMSC).

The DMSC aims to assist company members to improve their environmental sustainability through knowledge sharing on best practice and publicly reporting on collective outcomes.

**The Council's Australian Dairy Manufacturing Environmental Sustainability Report 2010/11 estimates 1.75 litres of water was used per litre of milk processed.** Consumptive water intensity is defined as "water in" which may include mains, ground and surface water. Companies that participated in this report processed 88% of all raw milk handled nationally.

It should be noted that water use depends on what is being produced. Cheese and yogurt for example, require more water use than dairy powder production so water use measurement must be calibrated against the product mix. Even allowing for the impact of product mix on the final volume of water used, individual dairy processing plants still use substantial volumes of water for equipment cleaning, cooling towers, boilers and other processes. Cleaning is the single largest water consuming process, and critical to ensuring all dairy products consumed are safe (Target 5).



## Performance measures

The Framework measures the extent to which dairy manufacturers are reducing their water intensity.

### 9.1 20% reduction in the consumptive water intensity of dairy manufacturers (on 2010/11 levels)

**Baseline data:** In 2010/11, dairy manufacturers used an estimated 1.75 litres of water per litre milk processed (Australian Dairy Manufacturing Environmental Sustainability Report 2010/11)

## Further work to refine targets, measures and baselines

The *Australian Dairy Manufacturing Environmental Sustainability Report* will be updated to measure the long term progress of the aggregated dairy manufacturing sector. In the interim, the Framework will provide a mechanism for monitoring and reporting progress. Individual companies are committed to monitor their own progress and adapt and innovate in areas where investment is required to improve their sustainability performance.



Parmalat factory, Rowville, Victoria.

## Sustainability at work — Lion's sustainability initiatives gain traction

Lion is a leading beverage and food company with a portfolio that includes many of Australia and New Zealand's favourite brands including many dairy brands. They produce an annual sustainability report outlining their progress on sustainable growth. In the 2012 report, highlights from the Lion's Dairy and Drinks (LDD) group include:

- Energy: usage was down by 19%. There are over 50 energy reduction initiatives underway across Lion.
- Water: Waste water was reduced by 15% on average.
- Carbon: LDD's scope 1 & 2 emissions were down by around 39%.



## Priority area 7: Minimising our environmental footprint

### Goal:

Maximise resource use efficiency

### Objective:

- Improving nutrient, land and water management
- Reducing greenhouse gas emissions

**Target 10:  
Reduce greenhouse  
gas emission intensity  
by 30%**

### Current performance

Australian agriculture accounts for about 17% of national greenhouse gas (GHG) emissions. The dairy industry contributes 10% of agricultural emissions which represents less than 2% of the national total. There is a range of pre- and post-farm gate activities that contribute to the dairy industry's total carbon footprint.

Around 80% of dairy's GHGs are produced on-farm. In addition to carbon counted as 'on-farm' due to animal husbandry and feed production, dairy farms also emit carbon dioxide through direct use of fossil fuels and electricity. **The carbon footprint for Australian farmgate milk was calculated to be 1.11 kilograms** of carbon dioxide per kilogram of fat and protein corrected milk (FPCM) for 2010/11. This was one of the lowest dairy footprints internationally and comparable with countries with the most advanced dairying industries.

The industry invests in strategies, guides and tools for farmers, in order to measure and reduce emissions. The Dairy Greenhouse Gas Abatement Strategies (DGAS) tool and on-farm energy audits assist farmers to reduce emissions generated by farm inputs, such as feed, fertiliser and electricity.

The majority of emissions from dairy manufacturing are due to energy consumed through electricity and on-site energy use, followed by transport. The amount of energy used and, therefore, the carbon emissions generated depend on the mix of dairy products produced. **In 2011, manufacturers produced 1.787 tonnes of carbon dioxide per megalitre of milk processed.** Manufacturers' emissions cover all scope 1 and 2 emissions associated with their manufacturing operations. This includes emissions from combusted stationary fuels (Scope 1), transport fuels (Scope 1) and emissions associated with grid electricity (Scope 2). Manufacturers are carrying out energy audits to track their energy usage.



A review of national manufacturers found that they have equivalent internal intensity targets of between 5% and 30% (with most at the upper end of the range). International dairy companies and organisations have 2020 targets for reduction, ranging from 10% (Dairy NZ), to 25% (US Dairy) and 20–30% (Dairy UK, on 1990 baseline).

At a broader level, the *Australian Food and Grocery Council* has set a 20% greenhouse and 10% energy intensity reduction target by 2020 over 2010/11 levels.

Additional ways in which the dairy industry has or is addressing its energy usage include:

- Life Cycle Assessment (LCA) of the carbon in the Australian dairy industry
- Dairy Australia projects, including DairySAT, Future Ready Dairy systems, pre-farm gate sustainability reporting; on farm emission mitigation strategies; farm energy audits
- Innovation through Dairy Innovations Australia Ltd (DIAL)
- Individual company programs and infrastructure investment

## Performance measures

The ways in which the Framework measures the extent to which the dairy industry is reducing GHG emissions are outlined below. Baseline data is included where it has been established. Further baseline data is being investigated, especially farm level data.

### 10.1 30% reduction in greenhouse gas emissions measured through:

- a. direct measurement of manufacturer emissions

**Baseline data:** *Manufacturers' emissions were 1.787 tonnes of carbon dioxide (equivalent) per ML milk processed in 2010/11 (Australian Dairy Manufacturing Environmental Sustainability Report 2010/11). Manufacturers' emissions cover all scope 1 and 2 emissions associated with their manufacturing operations. This includes emissions from combusted stationary fuels (Scope 1), transport fuels (Scope 1) and emissions associated with grid electricity (Scope 2)*

- b. output measures from farm abatement actions

**Baseline data:** *From 2012 Dairying for Tomorrow Survey: 20% of farms nationally have undertaken energy audits on dairy sheds; 48% of those had implemented an energy savings strategy; 40% of dairy farms have some renewable energy installation on farm*

## Further work to refine targets, measures and baselines

At the farm level, information collected in the Dairying for Tomorrow Survey on energy audits, energy savings strategies and renewable energy use serve as proxies to indicate progress in emissions reduction. Investigation of more direct measures of farm level emissions will be conducted, potentially leveraging Dairy Australia's Life Cycle Assessment work and the data sets generated by the DGAS calculator.

The DairySAT tool may be able to provide supporting measures for pre-farmgate sustainability reporting based on responses which rank attitudes and practice associated with GHG emissions from production efficiencies, feed base, nutrient management and energy use.

Detailed information on energy use is being collected as part of the Smarter Energy Use on Australian Dairy Farms Project and will also help inform farm level emissions targets.



The dairy industry is delivering four extension projects under the Australian Government's Carbon Farming Initiative Extension and Outreach funding. These projects will run over four years and promote the adoption of practices to reduce GHG emissions. The projects are being delivered by Dairy Australia, Murray Goulburn, Bega and Fonterra.

Dairy Australia co-invests in DIAL in partnership with dairy manufacturers. The focus is delivering effective technology transfer of research which includes consideration of energy efficiency. DIAL has set energy reduction targets (5–10% from reducing inefficiencies and 7–10% from Target 35 and smart drying).

### **Sustainability at work — Turning methane into renewable power**

In mid-2010, Murray Goulburn (MG) installed and commissioned two biogas engines with a combined electricity generating capacity of 760KW with the support of Sustainability Victoria and power supply company SP Ausnet. The biogas engines have the combined capacity to generate 5000 megawatts per year and to consume 99% of the methane produced by the plant. The engines are projected to reduce electricity demand from the grid by 9%. Final commissioning was expected to reduce MG's emissions by 11,000 tonnes of carbon dioxide each year.

### **Sustainability at work — Life Cycle Assessment**

In 2012 the Australian dairy industry's first *Life Cycle Assessment* (LCA) was completed. The primary reason for the study was to satisfy increasing demand for environmental information on products by quantitatively evaluating the environmental impacts, and in particular the carbon footprint, of major Australian dairy products.

The Australian dairy industry worked with the global dairy industry through the International Dairy Federation in 2010 to develop industry-specific carbon footprinting guidelines and these guidelines provided the underlying methodology adopted for the Australian LCA study.

Details of Australian Milk Production Carbon Footprint at the farmgate include:

- 1.11 kgCO<sub>2</sub>eq/kg FPCM: average Australian milk production carbon footprint for 2009/10
- The Australian milk production carbon footprint is one of the lowest internationally
- The Australian milk production carbon footprint is comparable to countries with advanced dairying industries
- 140 farms from six dairy regions participated in the farm system study
- 15 manufacturing facilities participated in the processing system study
- 57% farm emissions are due to enteric fermentation



## Priority area 7: Minimising our environmental footprint

**Goal:**  
Minimise waste

**Objective:**

- Maximise the recovery, reuse and recycling of materials from all waste streams

**Target 11:  
Reduce waste to  
landfill by 40%**

### Current performance

Over the last decade, Australian dairy manufacturers have begun to measure their waste in an effort to maximise the recovery, reuse and recycling of waste materials. **The amount of waste to landfill and recycled waste produced by manufacturers has reduced 50% in the past three years**, according to the Dairy Manufacturers Sustainability Council.

In 2011, Australian dairy manufacturers produced 2.69 tonnes of waste per megalitre of milk processed. A significant proportion of the solid waste generated by manufacturers consists of general packaging, however approximately 54% of all waste to landfill in 2011 was classified as general or mixed waste. This proportion of un-classified waste was a significant reduction on 2008 where general waste was classified as 97% of the volume. An increase in identification for specific waste types is indicative of improvement in waste segregation and recycling. In 2011, approximately 30% of solid waste from manufacturers was recycled.

**About 85% of Australia's milk supply is processed by companies that have signed the Australian Packaging Covenant**, a sustainable packaging initiative which aims to change the culture of business to design more sustainable packaging, increase recycling rates and reduce packaging litter. This represents nine out of approximately 20 manufacturers.

Farm wastes can cause issues with neighbours and the community. If not handled properly, farm wastes can also cause pollution of ground and surface waters. Through the DairySAT tool, farmers can better understand their waste management strategies and access information to assist them in managing and reducing waste. Farm level waste is difficult to measure directly or estimate across the industry. There are currently no measures that quantify farm waste, however the dairy industry has a new initiative (Plasback) tackling recycling of silage wrap and baling twine.



## Performance measures

The Framework measures the extent to which industry is minimising waste. Baseline data is included where it has been established. Further baseline data is being investigated.

### 11.1 Manufacturer level measured by:

- a. a direct quantitative target

**Baseline data:** *Manufacturers produced 2.69 tonnes of waste per ML milk processed in 2010/11 (Australian Dairy Manufacturing Environmental Sustainability Report 2010/11)*

- b. all manufacturers being signatories of the Australian Packaging Covenant (APC)

**Baseline data:** *Out of 20 identified manufactures, 9 were signatories to the APC in 2013*

### 11.2 Intent: to set a measure around farm level waste reduction

**Baseline data:** *DairySAT indicators will be used to set 2013 baseline*

## Further work to refine targets, measures and baselines

Manufacturers will continue to monitor their waste production, while individual companies have set waste reduction targets.

At the farm level, no measure has yet been set around farm level waste reduction as no baseline data is available. More work is required to develop the target and the baseline data.

A revised DairySAT module on farm waste is now available. The collected response data can be used as a qualitative indicator of performance and practice change across areas such as plastic wrap/covers, general waste, waste milk, and dead stock on farms, however lack of comprehensive quantitative waste data may make it difficult to produce a waste reduction metric.

Improvement measures (e.g. a % reduction in those reporting unacceptable practices / % increase in acceptable practice) for DairySAT proxies will be considered and agreed.

The industry is looking at partnerships with other groups to understand where waste is generated and how it can be reduced. Increased participation in recycling programs such as DrumMuster, and silage wrap recycling programs, may offer a proxy for waste reduction on farm.

The potential to collect other proxy data, for example the percentage of farms with waste management plans, should also be investigated. This could be through inclusion in the Dairying for Tomorrow Survey.

## Sustainability at work — Diverting solid waste from landfill

In 2008, Warrnambool Cheese & Butter (WCB) was recycling cardboard packaging from its cheese plant but most other solid wastes were going to landfill. Increasing landfill costs focused the company on the need to expand their recycling activities to include other wastes. A series of skip bin audits was followed by a five-year rolling program of installing recycling cages across the company, where both recyclable wastes and a recycling/collection vendor could be identified. In the first year of the program, WCB diverted 65 tonnes of waste from landfill and in 2011 diverted 306 tonnes for the year. As well as meeting the company's environmental goals, it also saved the business approximately \$145,000 in annual landfill costs.

For more information, visit [Warrnambool Cheese & Butter](#).



## Section C: Developing a Sustainability Framework

## 1. The challenge

Community and industry expectations around the sustainability of agricultural practices are increasing and extend across economic, social and environment factors. Our stakeholders are increasingly focussed on environmental and business practices, social contribution and animal welfare as well as economic performance.

Other food producers, global companies and peak industry bodies have responded to the sustainability agenda and bring with them their own expectations of Australia's dairy producers. Several initiatives are underway which involve the Australian dairy industry:

- Through ***Unilever's Sustainable Living Plan***, the company aims to source all its agricultural raw materials sustainably by 2020. Dairy is one of Unilever's top ten raw materials. Using the dairy industry's approach to sustainability, and mapping how Australian dairy production meets the company's Sustainable Agriculture Code for sustainable dairy production, Unilever has assessed all Australian milk production as 100% sustainably produced. This is the first time Unilever has used a whole of industry model to meet its requirements.
- Australian retailers ***Coles***, ***Woolworths*** and ***Metcash***, are driving sustainable fresh food sourcing and looking to establish their own sustainability criteria if industry is unable to present its credentials in a robust and acceptable way.
- The ***Australian Food and Grocery Council*** has developed a Sustainability Framework for its members, setting targets associated with water, waste, energy and emissions, packaging and sourcing.
- The ***International Dairy Federation*** is sponsoring a Global Dairy Agenda for Action on reductions in greenhouse gas emissions and is also exploring water footprinting and biodiversity issues.
- The ***Global Dairy Agenda for Action*** has released its Global Dairy Sustainability Framework.

The Australian Dairy Industry Sustainability Framework is consistent with all these initiatives.

Additionally, all tiers of government are seeking to drive sustainable food production policy agendas. There are opportunities for the Australian dairy industry if it can demonstrate a collaborative and integrated whole-of-value-chain approach to sustainability as well as providing a way to achieve whole-of-industry outcomes.

The Australian dairy industry has a proud record of economic, environmental and social contribution. However, the demands to validate our credentials in sustainability have intensified in recent years — and will only increase.

At the same time, industry appreciates the importance of stakeholder support and need to ensure our vision and plans meet their expectations. We share their desire to be transparent and accountable about our commitments, the standards we set, and our performance.

## 2. The dairy industry's approach

To meet the challenge of sustainability, the Australian dairy industry has developed an industry-wide approach — the Australian Dairy Industry Sustainability Framework.

The Framework sets the direction for the industry by outlining a forward sustainability agenda to 2020. It allows us to support and supplement existing activities and achievements, set targets, identify gaps and demonstrate progress.

A four-step methodology has been adopted for the development and implementation of the Framework. The methodology consists of:

1. Developing the Framework
2. Setting the targets
3. Designing and implementing action plans
4. Reporting on progress

The methodology is underpinned by our guiding principles, a governance structure and an ongoing commitment to comprehensive stakeholder engagement.

## 3. Guiding principles

To guide decision-making in the development of the Framework, a set of principles were adopted. These were used to prioritise issues, to determine the best approach to acting on them, and to decide on content and how stakeholders would be engaged.

Principle:	What does it mean in practice?
<b>Ethical behaviour</b>	The Australian dairy industry will act ethically at all times, paying heed to all laws, social norms, the rights of humans and the welfare of animals.
<b>Transparency and accountability</b>	The Australian dairy industry is accountable for its contribution to, and impacts/influence on, the community and the environment. The industry informs stakeholders about its aspirations for sustainability improvements and how it is performing with honesty and integrity at all times.
<b>Appreciation of stakeholder interests</b>	The industry respects and considers the interests and capabilities of its stakeholders and responds appropriately. The Framework's priorities, goals and actions reflect industry understanding of the issues of greatest importance to its stakeholders at a particular point in time.
<b>Competitive neutrality/ not providing competitive advantage</b>	Matters are addressed through the Framework in a manner that does not financially or otherwise advantage one organisation or group within the industry over others.
<b>Collective action that delivers mutual benefit</b>	Complement existing activities and focus on issues and activities for which outcomes can be better and/or more swiftly achieved through collective action.
<b>Inclusivity</b>	The plan will encompass all within the dairy farming and processing sectors.

The Framework considers the extended dairy value chain from feed production to manufacturing, retail and packaging. There is, however, an immediate focus on the areas where dairy farmers and processors have direct control (see Figure 3).

In order to develop a robust and internationally credible approach, development of the Framework was informed by leading international sustainability frameworks including:

- [United Nations Global Compact](#)
- [Global Reporting Initiative](#)
- [Carbon Disclosure Project](#)
- [Sustainable Agriculture Initiative Platform](#)
- [AccountAbility AA1000 Principles Standard](#)
- [ISO26000](#)
- [Sustainability Assessment of Food and Agriculture Systems Guidelines](#)

The established principles will continue to guide implementation of the Framework.

#### 4. Stakeholder engagement

Industry-wide stakeholder consultation has been integral to the Framework and target development in order to incorporate multiple perspectives and a wide range of expertise. This approach will continue as the Framework is implemented.

The consultation approach is based on the International Association for Public Participation (IAP2) framework which articulates the levels of engagement with stakeholders and the promise we make to them. It has been tailored to the specific needs of the project and the stakeholders involved.

In the development of the Framework we consulted stakeholders from the extended dairy industry value chain as well as government, interest groups and other agricultural industries.

#### Stakeholders engaged in the Sustainability Framework

##### Dairy industry stakeholders

- Australian Dairy Farmers Ltd (ADF)
- ADF Natural Resource Management Policy Advisory Group
- Australian Dairy Products Federation (ADPF)
- Australian Specialist Cheesemakers Association
- Dairy Innovation Australia Limited (DIAL)
- Dairy Manufacturers' Sustainability Council
- Gardiner Foundation
- Processors and manufacturers
- Regional Development Programs
- State Farmer Organisations

##### Other stakeholders

- Australian Food and Grocery Council (AFGC)
- Catchment Management Authorities
- Customers (e.g. Unilever, Nestlé)
- Governments (State and Federal)
- Input providers (e.g. Incitec Pivot, Elders, Landmark)
- Other agricultural organisations (e.g. National Farmers' Federation, Meat & Livestock Australia, Cattle Council)
- Regulators (e.g. Dairy Food Safety Victoria, EPA)
- Research providers
- Retailers (e.g. Coles, Woolworths, Metcash)
- Special interest groups (e.g. Australian Conservation Foundation, RSPCA, WWF)

**Implementing a structured stakeholder engagement approach throughout the project helped industry implement a robust Framework, improve transparency and enhance stakeholder support.**

Dairy Australia facilitated the engagement process which involved briefing sessions, consultation meetings, feedback / submission mechanisms, workshops, together with establishment of a steering committee with dairy farmer and manufacturer representatives, and a multi-disciplinary expert consultative forum.

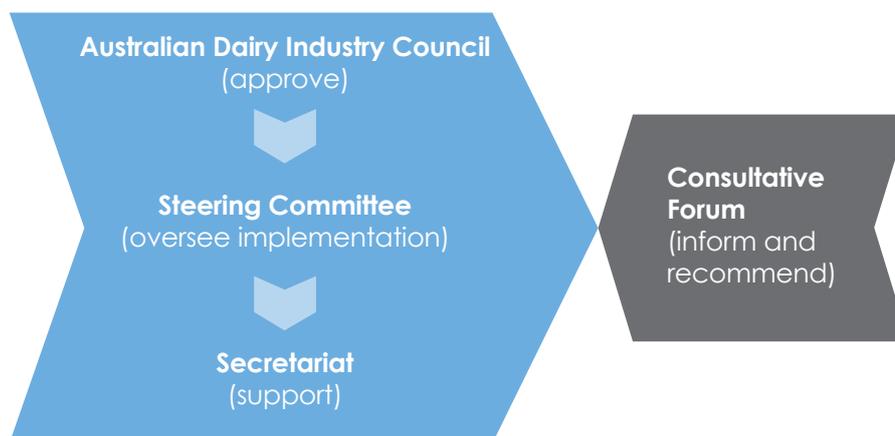
## 5. Governance

**To ensure the industry's vision, goals and targets are achieved the Framework requires whole of industry ownership and commitment, and a strong governance and implementation structure.** The structure involved in managing the development and implementation of the Framework encourages industry to work collaboratively to deliver change by formally recognising:

- Relevant audiences
- The need to assign roles and responsibilities for each body
- A hierarchy of accountability and transparency
- A process for decision making and endorsement

Specific Terms of Reference have been developed for all groups established.

**Figure 5: Sustainability Framework governance structure**



### The governance bodies

- The **Australian Dairy Industry Council** is the industry's peak policy body which governs the ownership, development and implementation of the Framework. The Council is responsible for advising on the direction for the Steering Committee, and reviewing and endorsing key aspects of the Framework.
- The **Steering Committee** drives delivery of the Framework by working with industry to ensure its vision, goals and targets are met. The Committee consists of representatives from the farm and processing sectors as well as technical experts from Dairy Australia and specialist consultants. The Committee oversees development of the Framework and targets, delivery of action plans and the consultation process; and ensures that the Framework reflects emerging sustainability priorities. Members are listed in Appendix A.

- **Expert Working Groups** are established by the Steering Committee as needed to provide guidance on particular areas of a program or on specific technical issues.
- The **Dairy Sustainability Consultative Forum** consists of representatives from industry, customers, retailers, suppliers, government agencies and special interest groups. The Forum meets to:
  - contribute substantive expertise to the on-going development of the Framework on matters such as international standards, community expectations, regulation and supply chain.
  - provide feedback to industry on the strategic direction and associated priorities of the Framework.
  - provide industry with a conduit to engage its stakeholders on matters relating to its economic, social and environmental prosperity.

Members are listed in Appendix B.

- **Secretariat** support is provided by Dairy Australia to ensure coordinated delivery of the Framework across all priority areas and sectors. Working with other industry bodies, the Secretariat provides governance bodies with the necessary support to deliver the Framework. It coordinates the consultation process and links the dairy industry's Sustainability Framework with other groups working in this area, both nationally and internationally.

### Forum provides sustainability reality check

To support implementation of the Framework, the dairy industry has set up the Dairy Sustainability Consultative Forum — a multidisciplinary body of expert representatives from all key stakeholders groups, from both inside and outside the industry.

“We want to make sure we are on top of emerging trends and expectations in sustainability,” said Forum Chair and dairy farmer Chris Griffin.

“And we don't want to navel gaze. It's important our Framework does not just meet dairy industry expectations but that it stands up to outside scrutiny. Through the Forum we expect to hear a range of perspectives and have our assumptions challenged. Or in other words — get a reality check.”

Many Forum members or their organisations were involved in the initial consultation on the Framework. To date the 40-member Forum has met twice — in June and October of 2013 — with a focus on the development of SMART targets for the Framework. It is anticipated that the Forum will convene twice a year to provide advice and expertise.

## 6. Framework development

The Framework was developed during 2012 to act as a blueprint to guide the industry's efforts in enhancing livelihoods, improving wellbeing and reducing our environmental impact. Key activities that informed development included:

1. **A review of sustainability strategies and performance reporting** by dairy and other food organisations operating in Australia and globally, as well as selected advocacy groups.
2. **An assessment of the sustainability issues** of greatest importance for the dairy industry. This assessment took account of international peers, the interests of stakeholders and customers, societal norms, and policy-based performance.
3. Consultation with **industry and external stakeholders**.

An extensive materiality study to identify those sustainability areas of importance to stakeholders was undertaken at the outset by sustainability experts, Netbalance.

Feedback was then sought on key elements of the industry's sustainability approach including:

- The need for a whole-of-industry plan
- Appropriate focus of a plan
- Priorities — product responsibility, regional presence, land and nutrient management, energy, responsible inputs, water, solid waste, animal care / welfare, future ready industry, industry prosperity
- Principles
- Vision and objectives
- Timeframe — 2020 and beyond
- The need for targets
- Which stakeholders should be consulted

Initial consultation took place in May, June and July of 2012. In total, 50 face-to-face consultation meetings were held in every state where dairy operates, and the ACT. A wide range of perspectives were gathered.

Using the feedback, together with the findings of the extensive materiality study, a Sustainability Framework with goals, priority areas and objectives was drafted and circulated to all those initially consulted. Further meetings and teleconferences were conducted as requested by stakeholders, in particular with key dairy industry representative groups. **The feedback indicated that there was strong support for the proposed Framework, from both industry and other stakeholders.**



Most comments received related to the implementation of the Framework and the development of targets. Internationally accepted reporting standards and measurement of progress was noted as critical.

**The Australian Dairy Industry Council endorsed the Framework in November 2012, showing strong alignment on sustainability across the dairy value chain.**

## 7. SMART targets

Stakeholder engagement in 2013 focussed on setting targets spanning social (improving wellbeing), environmental (reducing environmental impact) and economic (enhancing livelihoods) performance across the dairy value chain. Measures to assess performance against the targets were developed.

Targets define what needs to be achieved and by when in order to reach goals. An appropriate set of targets is necessary to guide action and performance reporting. The aim was to develop targets that are SMART — specific, measurable, attainable, relevant and time-bound. **Targets should also be responsive to monitored performance of new and ongoing actions to ensure they remain relevant over time and drive the kinds of practice change desired. Targets must not hinder innovation and growth.**

Dairy Australia worked with sustainability experts Netbalance to support target setting and action planning under the Framework. This involved a review of sustainability indicators associated with projects and initiatives being undertaken by Dairy Australia, dairy companies and other groups (e.g. Regional Development Programs, DIAL and the Gardiner Foundation). Metrics from Dairy Australia research were investigated. National and international industry activities, actions and targets were also reviewed.

This enabled a suite of targets to be drafted against the objectives of the Framework. A series of intensive workshops with the Steering Committee and the Dairy Sustainability Consultative Forum, as well as collaboration with a wide range of key industry groups, stakeholders and technical specialists, facilitated further refinement of the targets and their measures.

A number of issues pertaining to the nature of targets were considered at the beginning of the process:

- **Should the targets reflect outputs or outcomes?** Direct outcome-focused targets against objectives were preferred, however each was likely to be supported by a collection of suitable output and/or proxy measures. Output measures would need to be considered when measuring outcomes and this is not always practical. Lead indicators could be more informative and should also be considered.
- **Should the targets be absolute or intensity-based?** It was decided that the choice of absolute (e.g. amount of water used) or intensity-based (e.g. amount of water used per litre of milk produced) measures needed to be made in the context of each target and with guidance from peer and industry review. Targets needed to be complementary with no perverse outcomes and not inhibit innovation or growth.
- **Should the targets be aspirational or stretch?** Appropriately benchmarked stretch goals that are practically informed were preferred. Aspirational targets (while ambitious), should be used where consistent with market expectation or cultural norms (e.g. the safety of people and food). Regardless of the type of target, each needed to be supported by a business case, including how the target would be benchmarked.
- **How should benchmarking be used?** Benchmarking to industry and historical performance (particularly historical trends) would be ideally used to support measures under consideration.
- **How should time horizons for targets, milestones and baselines be set?** The year 2020 was agreed upon as an initial timeline for the Framework, recognising the need to think beyond this and to be flexible when faced with adverse climatic events.

These discussions informed a preferred approach for target setting.

In order to address the seven priority areas defined in the Framework, 11 high level targets were drafted. Each target is also supported by measures that will enable the industry to monitor and report on progress.

It is important to recognise that not every target can meet all of the SMART criteria.

**There is still work to be done on confirming targets for particular objectives. This work includes research to assess if baselines are available. Notwithstanding this further work, the targets and their measures were endorsed by the Australian Dairy Industry Council in October 2013.**

## 8. Outcome monitoring and reporting

Public reporting is essential to communicating transparently on sustainability commitments and performance. Monitoring and reporting on progress against the Framework will help drive actions, measure performance and manage change.

Regular sustainability reporting by the dairy industry will provide credible trending data and build capacity for foresight and longer term planning. This report represents the first progress report against the Framework. Reporting progress against targets is likely to be undertaken every two years. However, the availability of data will inform decisions around the frequency of reporting. As the targets and baselines are still being finalised in some areas, we will report further progress at the end of 2014.

To collect data in a consistent and timely manner will require the collaboration of a range of organisations and groups. Where appropriate and possible, existing reporting mechanisms will be used or modified. If mechanisms are not available, they will need to be developed in a cost effective manner. It will be important to ensure that monitoring and reporting does not create costs with no offsetting value.

**The industry is taking an adaptive, evolving approach to sustainability targets, strongly linked to monitoring, reviewing and reporting progress.** The progress made by industry towards meeting its sustainability goals will be regularly reviewed to ensure the Framework is dynamic, responsive and internationally credible. In response, the Framework will be revised and refined to 2020 and beyond to account for changing industry practices and emerging priorities, as well as community and customer expectations.

**Ongoing cycles of implementation, reporting and review will ensure the Framework maintains currency.**

## 9. Future focus

During 2013, in consultation with industry and stakeholders, we have set specific industry-wide SMART targets and investigated baseline data against which to measure performance.

Not every target can yet meet all of our SMART criteria. In some instances, gaps were not identified in terms of programs or actions, but rather measurement gaps were highlighted.

**The process of developing the Framework and its targets is an ongoing commitment to continuous improvement. The Framework and its targets, measures and baselines, will and should evolve.**

In 2014, the focus of activity will be on finalising those targets and measures still under discussion, and ensuring appropriate baselines are in place, as well as developing and implementing action plans to deliver on the targets. A further progress report will be published at the conclusion of 2014.

Action plans will be specific to each priority area of the Framework, and will be linked to one, or potentially multiple targets. They will bring together and build on relevant projects, programs and initiatives already being implemented across the dairy value chain.

There may be some targets for which no current action is being taken. Where these gaps are identified, new initiatives may be recommended.

**The process for identifying, evaluating and testing new actions will draw on the input of all our stakeholders.** This will ensure that the action plans are economically viable, meaningful and measurable.

Continued stakeholder engagement on the Framework will be undertaken as implementation continues. Implementation will also be informed and shaped by the ongoing review process.



# Appendices

## Appendix A: Dairy Sustainability Steering Committee members

Irene Clarke	Australian Dairy Farmers
Chris Griffin (Chair)	Australian Dairy Industry Council
Peter Stahle	Australian Dairy Products Federation
Elvis Amir	Bega/Tatura
Ken Garner	Bega/Tatura
Gabrielle Sheehan	Currie Communications
Mark Paterson	Currie Communications
Robin Condron	Dairy Australia
Helen Dornom	Dairy Australia
Paula Fitzgerald	Dairy Australia
Shane Hellwege	Dairy Australia
Isabel MacNeill	Dairy Australia
Charlie McElhone	Dairy Australia
Claire Miller	Dairy Australia
Chris Murphy	Dairy Australia
Catherine Phelps	Dairy Australia
Neil van Buuren	Dairy Australia
Glenys Zucco	Dairy Australia
Jack Holden	Fonterra
Meredith Banks	Lion
Rose Philipzen	Moxey Farms
Anthony Bourke	Murray Goulburn Co-operative
Brendan Lim	Netbalance
Robyn Leeson	Netbalance
David Basham	South Australian Dairyfarmers Association

**Appendix B: Dairy Sustainability Consultative Forum members**

Irene Clarke	Australian Dairy Farmers
Chris Griffin (Chair)	Australian Dairy Industry Council
Peter Stahle	Australian Dairy Products Federation
Lynne Duckham	Australian Food and Grocery Council
Guy Fitzhardinge	Beef Farmer
Patten Bridge	Bridge Logic
Mark Harvey-Sutton	Cattle Council of Australia
Jackie Healing	Coles
Saul Cunningham	CSIRO Sustainable Agriculture Flagship
John McKillop	Dairy Australia Board
Susan Tridgell	Department of Agriculture (formerly DAFF)
Angela Avery	Department of Environment and Primary Industries (VIC)
Jack Holden	Fonterra
Alexandra Gartmann	Foundation for Rural & Regional Renewal
Clare Luehman	Incitec Pivot Ltd
Meredith Banks	Lion
Renelle Jeffrey	Meat & Livestock Australia
Corrie Goodwin	Milk2Market
Simon Talbot	Mondelez
Anthony Bourke	Murray Goulburn
Sasha Courville	NAB
Sylvia Vagg	NCDEA GOTAFE
Aaron Kendrick	Nestlé Australia Ltd
Laurie Buys	QUT
Amanda Lee	QUT
Heather Neil	RSPCA Australia
David Basham	South Australian Dairyfarmers Association
Phillip Wright	St James Ethics Centre
Carlene Dowie	The Australian Dairyfarmer Magazine
Navin Dutt	Unilever
Ian McConnel	WWF

With support from Dairy Australia team members:

Robin Condron  
Helen Dornom  
Paula Fitzgerald  
Isabel MacNeill  
Charlie McElhone  
Claire Miller  
Chris Murphy  
Catherine Phelps  
Neil van Buuren  
Glenys Zucco

## **Appendix C: Baseline data information sources**

To establish baseline data for the Framework's targets and measures, a number of sources were used.

### **Animal Husbandry Survey (AHS)**

- Conducted every two years with Australian dairy farmers to foster and encourage responsible animal husbandry, and to monitor performance in key priority areas. While self-reported, survey results are validated through independent mechanisms (e.g. focus groups). Funded by Dairy Australia and conducted by an independent organisation, the most recent survey was conducted in 2012 and surveyed over 400 dairy farmers nationally.

### **Australian Milk Residue Analysis (AMRA) Survey**

- An independent national government coordinated monitoring program for potential agricultural and veterinary chemical residues, and environmental contaminants in the Australian milk supply. The survey provides evidence that the Australian dairy industry's food safety system and quality assurance programs effectively manage the food safety and trade related risks associated with the use of agvet chemicals. The survey also meets the export requirements of the Department of Agriculture under the Export Control (Milk and Milk Products) Orders 2005. It also provides assurance to importing countries that Australian dairy commodities comply with importing country requirements with respect to managing the risks from the use of agvet chemicals.

### **Dairy Monitor Survey — Wave 8 (DMW8 2013)**

- An annual tracking survey conducted amongst 1600 metropolitan and regional respondents to gauge community perceptions of dairy foods and the dairy industry and their dairy consumption behaviour. It covers a range of industry perceptions from animal welfare through to economic, environmental and social impacts of the industry from non-dairy members of the community. It is conducted in March/April each year. The survey is funded by Dairy Australia, but conducted by an independent organisation.

### **Dairying for Tomorrow Survey**

- A survey currently conducted every 6 years amongst 800 dairy farmers nationally to determine key issues facing farmers in relation to accessing and managing natural resources. It covers aspects such as irrigation water access, fertiliser and effluent management, waterways and native vegetation. As such it provides indicators of on-farm practice change over time. The survey is funded by Dairy Australia, but conducted by an independent organisation. The most recent survey was conducted in 2012.

### **National Dairy Farmer Survey (NDFS)**

- A bi-annual survey conducted amongst 1400 dairy farmers nationally (n=1,000 for main survey and n=400 for supplementary survey) to understand their current views of the industry, the challenges they are facing and the impact of these on their businesses. It also provides information on production, herd sizes and future intentions. The main survey is conducted in February each year and a smaller supplementary survey takes place in August each year amongst a portion of respondents interviewed in the main survey. The survey is funded by Dairy Australia, but conducted by an independent organisation.

### **Australian Dairy Manufacturing Environmental Sustainability Report 2010/11 (ADMES)**

- The third report on environmental sustainability in the Australian dairy manufacturing industry, covering the financial year 2010/11. This report compares the industry's performance against data previously published for 2005 and 2007/08. On an absolute basis, the resource efficiency data for 2010/11 can be regarded as the most accurate collected by the Australian dairy manufacturing industry to date. It was produced by the Dairy Manufacturers Sustainability Council, and supported by Dairy Australia.

## Appendix D: Peer review

In order to fully understand the context for setting industry sustainability targets, research was conducted on targets currently in place amongst international dairy industries (UK and USA) and customers, and domestic dairy manufacturers. The findings, summarised in Tables 1 and 2, indicate that target setting for sustainability activities is becoming increasingly common.

Findings included:

- Organisations generally had a focus on environmental outcomes
- There was similarity in environment indicators chosen (e.g. energy use, emissions, water use, waste)
- There was a preference for intensity-based (i.e. volume-based) reduction targets, rather than absolute targets
- A mixture of 'stretch' and 'aspirational' targets have been adopted

**Table 1. International sustainability targets**

Target	Dairy UK <sup>*</sup>	US Dairy <sup>#</sup>	Dairy NZ <sup>**</sup>	Unilever <sup>^</sup>	Nestlé <sup>~</sup>	Global Dairy Agenda for Action
Investing in dairy people			Average skill level of dairy farm workforce is increased by 40% by 2016			
Supporting communities						The dairy sector contributes to the resilience and economic viability of farmers and rural communities
Creating industry prosperity			Labour productivity increases by reducing staff turnover to the national average by 2015	Engage with at least 500,00 smallholder farmers and 75,000 small scale distributors in our supply network		
Animal welfare		In development. US Dairy has a voluntary, third-party verified animal care and quality program since 2009), however no target.	100% compliant with good practice guidelines by 2012		Have on-farm animal welfare commitment, and are currently developing responsible sourcing guidelines for animal welfare.	Dairy animals are treated with care, and are free from hunger and thirst, discomfort, pain, injury and disease, fear and distress, and are able to engage in relatively normal patterns of animal behaviour.
Maximising nutrition		90% of schools provide low-fat and/or non-fat milk		The proportion of product portfolio that meets the highest nutritional standards, based on globally recognised dietary guidelines will double by 2020	Aiming to ensure their foods meet recommended daily intakes of five energy and health sensitive nutritional factors, including: energy, sodium, added sugars, fructose and saturated fatty acids.	The integrity and transparency of the dairy supply chain is safeguarded, so as to ensure the optimal nutrition, quality and safety of products.
Ensuring health and safety						Across the dairy value chain, workers operate in a safe environment, and their rights are respected and promoted

*Continued overleaf...*

Table 1. International sustainability targets cont...

Target	Dairy UK*	US Dairy#	Dairy NZ**	Unilever^	Nestlé~	Global Dairy Agenda for Action
Energy/GHG emission reduction	20–30% intensity reduction by 2020 (from 1990 levels)	25% GHG reduction for fluid milk by 2020	10% on farm	Halve GHG impact of products across lifecycle by 2020 per consumer use	Energy consumption per tonne of product reduced by 25% by 2015, compared with 2005 figures	GHG emissions across the value chain quantified and reduced through economically viable mechanisms
Resource or energy efficiency	40% renewable energy used-on farm	Farm energy efficiency improved 10–35%				
Water use	Farms to reduce water use intensity by 5–15% by 2010 Water use 50% lower than 1999 by 2012		85% of farms install water metres by 2020	Halve the water associated with the consumer use of our products by 2020	Reduce direct water withdrawal per tonne of product by 40% by 2015, compared with 2005	Water availability and quality managed responsibly throughout the dairy value chain
Waste to landfill	Zero by 2020 from manufacturers Dairy farms recycle or recover 70% of non-natural waste			Halve waste associated with the disposal of our products by 2020	By 2015, 10% of Nestlé factories with zero waste	Waste generation is minimised and, where unavoidable, waste is reused and recycled.
System footprint (water, GHG, nutrient loss)			Reduction 30% by 2016			
Recycled content	50% in plastic bottles					
Nutrient management	Nutrient management by 90% of producers by 2012		Collect nitrogen and phosphorus data from 85% of dairy farms by 2014, 100% by 2015			Nutrient application is managed to minimise impacts on water and air, while maintaining and enhancing soil quality
Effluent management			Three yearly assessment program 85% of farms by 2013, 100% of farms by 2014			
Riparian management	65% of dairy-managed farmland		Fenced off, stock crossings and plantings e.g. 90% exclusion on dairy farms 2014, 100% by 2017			Direct and indirect biodiversity risks and opportunities are understood, and strategies to maintain or enhance it are established.
Wetland management			100% exclusion of livestock by 2014			

\* DairyUK has a staged approach, with targets for 2010, 2012, and 2020. Dairy UK — Milk Roadmap [www.dairyuk.org/environmental/milk-roadmap](http://www.dairyuk.org/environmental/milk-roadmap)

# US Dairy — [www.usdairy.com/Public%20Communication%20Tools/2011USDairySustainabilityReport.pdf](http://www.usdairy.com/Public%20Communication%20Tools/2011USDairySustainabilityReport.pdf). US Dairy have estimated the potential healthcare cost savings from 3–4 daily servings of dairy to be more than \$200 billion over a 5 year period.

\*\* DairyNZ, many of these targets are based the Water Accord recently announced by DairyNZ. Other source is the Strategy for Sustainable Dairy Farming (2009/20)

^ Unilever figures have been sourced from: [www.unilever.com/images/uslp-Unilever\\_Sustainable\\_Living\\_Plan\\_Progress\\_Report\\_2011\\_tcm13-284779.pdf](http://www.unilever.com/images/uslp-Unilever_Sustainable_Living_Plan_Progress_Report_2011_tcm13-284779.pdf)

~ Nestlé in Society 2012. In addition, They have a specific commitment to farm animal welfare accessed: [www.nestle.com/asset-library/Documents/Creating%20Shared%20Value/Rural\\_development/Nestle-Commitment-Farm-Animal-Welfare.pdf](http://www.nestle.com/asset-library/Documents/Creating%20Shared%20Value/Rural_development/Nestle-Commitment-Farm-Animal-Welfare.pdf)

**Table 2. Domestic sustainability targets — Dairy manufacturers and Australian Food and Grocery Council**

Target	Fonterra*	Murray Goulburn	Bega	WCBF	Lion#	AFGC
<b>Supporting communities</b>	All processors have programs that support their local communities, however specific targets have not been identified					
<b>Investing in dairy people</b>	Goal to be world class in health and safety performance by FY14				Year-on-year improvement in Lost Time Injury Frequency Rate, reaching zero in 2015	
<b>Sustainable sourcing</b>						Sustainable sourcing policies in place by 2015
<b>Produce safe products</b>		Minimise our chemical use				
<b>Maximising nutrition</b>						Reduce saturated fat in foods by 25% Reduce sodium in products by 25% Reduce energy in products by 12.5%
<b>Caring for animals</b>	Zero harm to animals					
<b>Energy &amp; emissions reductions</b>	30% emissions intensity reduction	Energy intensity <75% of 2010–11 baseline	Draft target: 5–10% in the next 5 years energy per tonne of product (GJ/CO <sub>2</sub> ) <sup>^</sup>		30% by 2020 (absolute target)	10% energy intensity 20% CO <sub>2</sub> intensity
<b>Water</b>	No potable water	Water use per tonne of production is <25% of 2010/11 baseline		Investigating various water saving options	10% by 2014 (absolute target)	20% water intensity
<b>Waste (landfill % recycled content)</b>	Reduce waste to landfill by 85% in NZ	Zero waste to landfill  Recycling rate of waste is ≤70% of total waste of 2010/11 baseline				
<b>Packaging</b>	APC signatory All packaging will be recyclable in the market where it is sold	APC signatory	APC signatory	APC signatory	APC signatory 88% of packaging is recycled	100% signatories to APC

\* Internal targets Fonterra [www.zerowaste.co.nz/whats-nz-doing/businesses/case-studies/fonterra/](http://www.zerowaste.co.nz/whats-nz-doing/businesses/case-studies/fonterra/)

# Lion information is based on their 2011 Sustainability Report

<sup>^</sup> Currently under development

Dairy processors consulted do not have targets on many of their wellbeing and prosperity goals, however they do have initiatives and actions contributing to these types of goals.

Source: Interviews and publically available information.



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