



# Integrating NRM with Industry-Led Sustainability

by GHD Pty Ltd

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Integrating NRM with Industry-Led Sustainability Initiatives

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# Foreword

## **Farmers are at the frontline of delivering environmental outcomes on behalf of the Australian community – owning, managing and caring for 61% of Australia’s land mass.**

Reflecting the importance of good practice, a number of industries are developing sustainability frameworks that reflect production systems and market preference. The dairy, eggs, cotton and beef industries have sustainability frameworks, which are increasingly linked with best management practice guidelines and their research and development priorities, and which are being used to secure market access.

Regional natural resource management (NRM) organisations have a significant role in the delivery of the Federal Government’s National Landcare Program funding and funding from other investors through collaboration with community, Landcare and farming system groups. These organisations lead regional NRM planning and the prioritisation of NRM activities to support environmental protection and sustainable agricultural practices, increasing landscape resilience, farm productivity and natural capital condition.

In this context, there is opportunity to strategically connect and leverage the investments that agricultural industries make in delivering sustainable farming initiatives with the work and investment of the NRM regional bodies. The development of sustainability frameworks with compatible data components that are complementary to, and supported by, regional resource management investment and planning offer the opportunity to increase the efficiency of monitoring, evaluation, reporting for both industry, regional bodies and national and state investors.

This report examines and builds the evidence base on the integration of the activities of the NRM regional bodies with industry-led sustainability initiatives and identifies those areas of common value. The report also aims to identify potential policy and program settings to facilitate and encourage greater collaboration and integration for those common values.

The findings are relevant to all agricultural industries across Australia and the recommendations are particularly relevant to industries that have developed, or intend to develop, industry-wide sustainability initiatives, including strategies, frameworks and Best Management Practice programs and guidelines.

This report has been produced under AgriFutures Australia’s National Rural Issues Program. It is an addition to AgriFutures Australia’s diverse range of over 2000 research publications and it forms part of our National Challenges and Opportunities arena, which aims to identify and nurture research and innovation opportunities that are synergistic across rural sectors. Most of AgriFutures Australia’s publications are available for viewing, free downloading or purchasing online at: [www.agrifutures.com.au](http://www.agrifutures.com.au).

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GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation across 75 service lines. In agricultural and farming systems, GHD offers a unique blend of knowledge and practical experience across commodities and markets, natural resource management, economics and policy, water and biodiversity, with our integrated approach to agribusiness solutions encompassing the entire supply chain. Privately owned by our people, we deliver engineering, architecture, environmental, advisory, digital and construction services to public and private sector clients across five continents and the Pacific region. Committed to creating lasting community benefit, we connect the knowledge, skill and experience of our 10,000 diverse people with innovative practices, technical capabilities and robust systems. [www.ghd.com](http://www.ghd.com)

## Acknowledgments

GHD wishes to acknowledge the input from industry contacts who assisted in the preparation of the case studies by contributing information and reviewing drafts. GHD also acknowledges the representatives from industry, NRM regional bodies and Australian Government agencies who participated in the project workshop.

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# Executive Summary

This project aims to examine and build the evidence base on the integration of the activities of the natural resource management (NRM) regional bodies with industry-led sustainability initiatives and to identify those areas of common value. The project also aims to identify potential policy and program settings to facilitate and encourage greater collaboration and integration where there is common value.

## Key insights and implications

### Integration of activities of the NRM regional bodies with industry-led sustainability initiatives

Changes in consumer and stakeholder expectations over the past decade or so has seen the emergence of a number of industry-led sustainability initiatives across Australia's primary industries. These sustainability initiatives include frameworks and reporting measures, often linked to BMP programs and guidelines, aimed at demonstrating the industry's sustainability credentials.

Examination of eight of these initiatives found that the involvement of NRM regional bodies in the development and implementation of the initiatives has been limited. This does not mean that there have not been other areas of collaboration or engagement amongst industry and NRM regional bodies, rather there has not been consistent or formal collaboration relating to industry-led sustainability initiatives. Based on the case study findings, where collaboration has occurred, it has generally been on an ad hoc or project-by-project basis, often relying on existing relationships between key staff in the different organisations and/or driven by opportunistic funding available at the time.

A number of barriers were identified as likely to have inhibited the integration of activities and effective collaboration. These included:

- Lack of a clear strategy for NRM and sustainable agriculture across industries at the national level
- Lack of understanding and appreciation of the role and of each party and their respective initiatives
- No clear entry points for engagement, i.e. it is hard to identify appropriate contact points across 56 NRM regional bodies, 15 Rural Research and Development Corporations (RDCs) and multiple peak industry groups
- Difficulties arising from the need to ensure appropriate attribution of the contribution of each party, and
- Reduced funding to resource coordination of efforts and drive system level integration and collaboration.

There are clear benefits stemming from industry leading the development and implementation of sustainability initiatives, including ownership of goals and targets, and market-based rather than regulatory drivers for the adoption of BMPs. Despite these benefits, however, there are implications for industry, NRM regional bodies and government that need to be considered.

The sector specific approach to the development of the initiatives has meant that there is not a consistent or coordinated approach to their development or implementation, and therefore the integration of the activities of NRM regional bodies. The most obvious implication from this lack of coordination is that there is a duplication of effort in data collection and reporting amongst industry and NRM regional bodies. The implication for government is that it makes it difficult to target its considerable program investments, limiting the potential to leverage these investments to maximise both sustainable agriculture and environmental outcomes.

## Identifying areas of common value

Despite there being limited involvement to date of NRM regional bodies in the development and implementation of industry-led sustainability initiatives, consultation with industry, NRM regional bodies and government undertaken as part of this project found that all parties see opportunity for greater integration of their activities. There is also a need to ensure that the considerable investment made by Australian farmers and taxpayers in sustainable agriculture and environmental outcomes is strategically targeted and leveraged for maximum impact, a point that has been taken up by the peak farm representative body, the National Farmers' Federation (NFF).

Two overarching themes emerged from this project where there is common value in collaborating to meet the shared objectives of both industry and the NRM regional bodies, as well as those of government. These are:

- Telling the story of sustainable practices across Australian agricultural industries, and
- Supporting practice change amongst Australian farmers and land managers.

While there were a number of key activities identified as underpinning these common objectives, the areas identified as warranting particular focus are:

- *Improving the alignment of strategic goals and priorities* – given the issues of scale across agricultural industries and geographic regions, this needs to be progressed from the local level through to international commitments and vice versa,
- *Achieving greater consistency of sustainability metrics and indicators* – all project participants noted difficulties in identifying and reporting on appropriate sustainability measures and as such, progress in aligning measures where feasible is considered a high priority,
- *Improving the compatibility of data sets* – inconsistent data sets is identified as a key area of potential duplication and as such, a process to map data needs and availability across sectors is also considered a high priority, and
- *Supporting practice change* – it was identified that there is greater scope to collaborate in research, development and extension activities, leveraging program and project level investment, and identifying new market opportunities that might assist drive farm level sustainability.

As the interests of industry and NRM regional bodies converge around a shared vision for sustainable, profitable and productive farms, pursuit of increased collaboration in the key activities outlined above will assist each meet their respective objectives. Importantly, greater alignment in the approaches to determining sustainability indicators, data collection and reporting not only has the potential to reduce duplication of efforts, leading to reduced implementation costs, it will assist the collective ability of the Australian agricultural industry to tell a consistent and coherent story in relation to its sustainability credentials. Government has a key role to play in supporting and facilitating increased collaboration between NRM regional bodies and industry where the full benefits of such collaboration do not accrue to any one party, and where there is the opportunity to promote the Australian agricultural industry on the world stage.

## Settings to facilitate and encourage greater collaboration

Given the barriers that have existed to effective integration of the activities of NRM regional bodies with those of industry-led sustainability initiatives, thought needs to be given to mechanisms that will enable and drive increased coordination and collaboration. It has been identified that industry, NRM regional bodies and government all have a role to play in achieving this.

It is clear that there is a need for increased coordination both within and across sectors. There is also a need to establish forums for ongoing relationship development across industry and NRM regional bodies to facilitate collaboration beyond the *ad hoc* interactions that currently occur. It is likely that a mix of approaches will be required to achieve this, which may range from involvement in sector or regionally

specific consultative groups to a national forum to consider cross sectoral issues. Both industry and NRM regional bodies have a role, and indeed a responsibility to their investors, in driving these interactions.

There is also the need for a clear strategy for NRM and sustainable agriculture across industries at the national level. Government has a key role to play in providing this national leadership through integrated policy and planning. Government also has a role in providing national coordination and collation of relevant datasets, which may be aided by the establishment of a set of national environmental accounts. Greater alignment can also be achieved by taking steps to identify those components of industry-led sustainability initiatives that are common and where indicators can be standardised across sectors. While government may take the lead, both industry and NRM regional bodies have a role in mapping their current availability and needs in respect to sustainability metrics and data.

Finally, with government currently investing in a number of programs aimed at achieving sustainable agriculture and environmental objectives, they have a clear role in ensuring this investment is strategically targeted and promotes effective collaboration between industry and NRM regional bodies. A review of current program settings may be required to determine if additional funding can be directed to incentivise the integration of the activities of NRM regional bodies with those of the industry sustainability initiatives.

## **Recommendations**

It is recommended that the findings of this project are shared with each of the 15 RDCs, 56 NRM regions and relevant Australian Government agencies as there are implications to each and actions that could be taken to improve integration and realise common value. Both industry and NRM regional bodies can work to improve the understanding and appreciation of each other's respective roles and offerings, as well as to improve the coordination across sectors and regions. Government is best placed to provide national leadership through integrated policy development and strategic investment in sustainable agriculture and environmental objectives.

The following specific actions are suggested:

### **Industry**

1. Engage NRM regional bodies early in the development and implementation of sustainability initiatives, including in steering committees and consultative groups as appropriate.
2. Consider the role of NRM regional bodies in extension and adoption activities, including exploring more effective ways to share R&D findings relating to improved practices.
3. Map where there is commonality across sectors in indicators and data requirements.
4. Coordinate and participate in forums for ongoing engagement with NRM regional bodies.

### **NRM regional bodies**

5. Involve industry in regional strategic planning and program development.
6. Invest in a catalogue or inventory of available data that could be made available to industry under appropriate partnership arrangements.
7. Coordinate and participate in forums for ongoing engagement with industry RDCs and other peak bodies leading the development of sector specific sustainability initiatives.

### **Government**

8. Provide coordination and leadership through the development of a national sustainable agriculture strategy that demonstrates clear linkages with international standards and goals.
9. Progress the development of a national set of environmental accounts to underpin this strategy aiding alignment of indicators and data requirements across sectors and regions.
10. Consider how current and future program settings can be used to improve the strategic alignment of the goals and priorities contained in industry-led sustainability frameworks and NRM regional plans.

# 1. Introduction

GHD was engaged by AgriFutures Australia to undertake a project to identify common value propositions for the increased integration of sustainability initiatives led by Australian primary industries with the activities undertaken by Natural Resource Management (NRM) regional bodies.

Australian farmers are at the frontline of delivering environmental outcomes on behalf of the Australian community, owning, managing and caring for 61% of Australia's land mass. Highlighting the importance of good practice, several industries are developing sustainability initiatives that demonstrate production systems and market preferences. Industry-led sustainability frameworks are often linked with best management practice (BMP) guidelines and industry research and development priorities, and are increasingly being used to secure market access.

NRM regional bodies across Australia lead regional planning and prioritisation of activities to support environmental protection and sustainable agricultural practices, which serve to increase landscape resilience, farm productivity and natural capital condition. These bodies play a significant role in delivering both state and federal investments in NRM through collaboration with community and farming groups.

Key industry stakeholders have identified the opportunity to strategically connect and leverage the investments agricultural industries make in delivering sustainable farming initiatives with the work and investment of the NRM regional bodies.<sup>1</sup> Recognising that the interests of industry and those of the NRM regional bodies are converging around a shared vision for sustainable, profitable and productive farms, in June last year the National Farmers' Federation (NFF) and NRM Regions Australia signed a Memorandum of Understanding to promote closer collaboration.

**'A key opportunity in the partnership is to strategically connect and leverage the investments agriculture industries make in delivering sustainable farming initiatives with the work and investment of the NRM Regions.'**

**Fiona Simson, President, National Farmers' Federation**



Such collaboration is also being driven by the requirements of Phase 2 of the Australian Government's National Landcare Program (NLP2), which provides investment in environmental and sustainable agricultural outcomes across Australia. A key component of NLP2 is the Regional Land Partnerships Program, the focus of which is connecting NRM regional bodies with new organisations not previously engaged with the program in order to increase leveraging to improve the effectiveness and efficiency of the program. The Australian Government has therefore actively sought increased participation from farming system groups, research, and industry organisations in the on-ground delivery of environmental and agricultural outcomes at a local and regional level. In this way they are hoping to better align public and private investment, and ensure greater effectiveness through joint efforts.

During the implementation of NLP2 there will also be an increasing focus on agriculture, and in particular, on increasing the adoption of sustainable land management practices. Regional Landcare Facilitators funded by the Program have become Regional Agriculture Landcare Facilitators, with their major role now being to support the adoption of sustainable practices on private land. Another major component of NLP2 is the Smart Farms Program, which has as its key focus increasing the adoption of best management practices to increase sustainability.

## 2. Objectives

### 2.1 Project aims

This project aims to examine and build the evidence base on the integration of the activities of the NRM regional bodies with industry-led sustainability initiatives and to identify those areas of common value. The project also aims to identify potential policy and program settings to facilitate and encourage greater collaboration and integration where there is common value.

The project involved three key steps:

- A desktop stocktake of industry-led sustainability initiatives to better understand the current state of play as well as key trends and drivers
- A series of case studies of industry-led sustainability initiatives to examine their involvement or otherwise of NRM regional bodies, and
- A thought-leaders workshop to develop the common value propositions and to identify potential policy and program settings to facilitate greater collaboration and integration.

The purpose of this report is to document the outcomes of each of these steps and to summarise the key project findings and recommendations.

## 3. Approach

### 3.1 Stocktake of industry-led sustainability initiatives

The first step of the project was to identify the major industry-led sustainability initiatives that are currently in place across Australia. To clearly define the scope of the research task, the major industries were classified based on the sectors represented by the rural Research and Development Corporations (RDCs). Given the relatively broad coverage of some RDCs, the meat and livestock sector was further broken down to include both beef and sheep meat, while rice was the only industry considered under AgriFutures' remit, which otherwise includes new and emerging industries.

The industries considered as part of the stocktake were therefore:

- Beef
- Cotton
- Dairy
- Eggs
- Fishing
- Forestry
- Grains
- Horticulture
- Pork
- Rice
- Sheep meat
- Sugar
- Wine
- Wool

A high-level analysis was undertaken using desktop research to determine the relevant characteristics of the major industry-led sustainability initiatives, including:

- Is there an industry-wide sustainability framework or reporting process?
- Has the industry developed Best Management Practices (BMPs)?
- Are there other industry-led sustainability initiatives, e.g. standards or programs, in place?
- What drove the development of the identified industry-led sustainability initiative/s?
- Who administers them and how are they funded?

The results of the analysis were compiled in an Excel spreadsheet describing each of the initiatives and allowing identification of any similarities and differences in the approaches taken by the industries. The stocktake provided the basis on which case studies were selected to further examine the involvement or otherwise of NRM regional bodies in the development and implementation of the industry-led sustainability initiatives.

### 3.2 Industry case studies

The second step of this project was to develop a series of industry case studies to examine the level of involvement of the NRM regional bodies in industry-led sustainability initiatives. Eight case studies were selected in consultation with AgriFutures providing a cross section of both industry sustainability frameworks and BMP programs, including those that have been operating for some time and those that have been recently developed.

The eight case studies were:

- Australian Beef Sustainability Framework
- Australian Egg Industry Sustainability Framework
- Cotton Australia's myBMP program
- Dairy Industry Sustainability Framework
- EnviroVeg Program
- Ricegrowers Associations' Environmental Champions Program
- Smartcane BMP Program, and
- Southern Rocklobster Ltd's (SRL) Clean Green Program.

GHD undertook a series of telephone discussions with relevant industry contacts to develop the case studies and to obtain information about each of the frameworks and programs that was not readily accessible through the desktop research.

Each of the case studies examined the involvement of NRM regional bodies in the key steps in developing and implementing the initiatives, including:

- Identifying the key environmental issues facing the industry
- Defining best management practices
- Identifying and/or providing baseline data
- Setting targets for BMP adoption and/or biophysical indicators
- Monitoring of outcomes, i.e. BMP adoption and/or changes in biophysical indicators
- Reporting of outcomes
- Providing extension services, and
- Any other involvement in the process.

### **3.3 Thought-leaders workshop**

The third and final step of the project involved convening a thought-leaders workshop to define the common value proposition/s for greater integration of the activities of the NRM regional bodies with industry-led-sustainability initiatives and to identify potential mechanisms to enable greater integration. There were 15 participants at the workshop, consisting of representatives from industry, including the NFF and RDCs, the NRM regional bodies, and Australian Government agencies, including the Department of Environment (DoE) and the Department of Agriculture and Water Resources (DAWR).

The workshop approach was adapted from the *Value Proposition Canvas*<sup>ii</sup>. Using this approach, the workshop participants from government, industry and the NRM regional bodies were asked to work together in groups to identify and rank their respective needs and offerings with respect to engaging with each other.

All workshop participants then discussed those areas of alignment in the respective organisations' identified needs and offerings, demonstrating where common value propositions exist. Finally, workshop participants were asked to identify and discuss mechanisms to enable greater collaboration and integration of activities.

## 4. Industry-Led Sustainability Initiatives

### 4.1 Background

In 2005, the Australian Government funded the Pathways to Industry Environmental Management Systems (EMS) program to enable 20 agricultural industries to develop environmental management/quality assurance schemes. In 2007, further funding was provided via the EMS Pathways to Sustainable Agriculture Program to 14 industry organisations and 8 NRM regional bodies to encourage closer collaboration in order to increase the uptake of EMS.

At the time it was assumed that a key driver for producers to participate in such schemes would be receipt of a price premium in the market. Whilst this may have been the case for some industries, those that relied on bulk handling were often not able to capture any such benefit and therefore in the absence of a clear driver, either market pull or some type of legislative requirement, interest in EMS for most industries waned.

More recently though the situation has changed and producers of all commodities are now under increasing pressure to meet the changing expectations of customers and stakeholders in order to retain their market access, particularly in international markets. Acceptance of their practices by customers and stakeholders is increasingly referred to and recognised by industry as a ‘social licence to operate’. By way of example, in the development of its Meat Industry Strategic Plan 2020, the Australian red meat and livestock industry quantified the considerable downside risk to the industry of losing consumer and community support relative to other more traditionally identified areas of opportunities and risks to the industry (Figure 1).

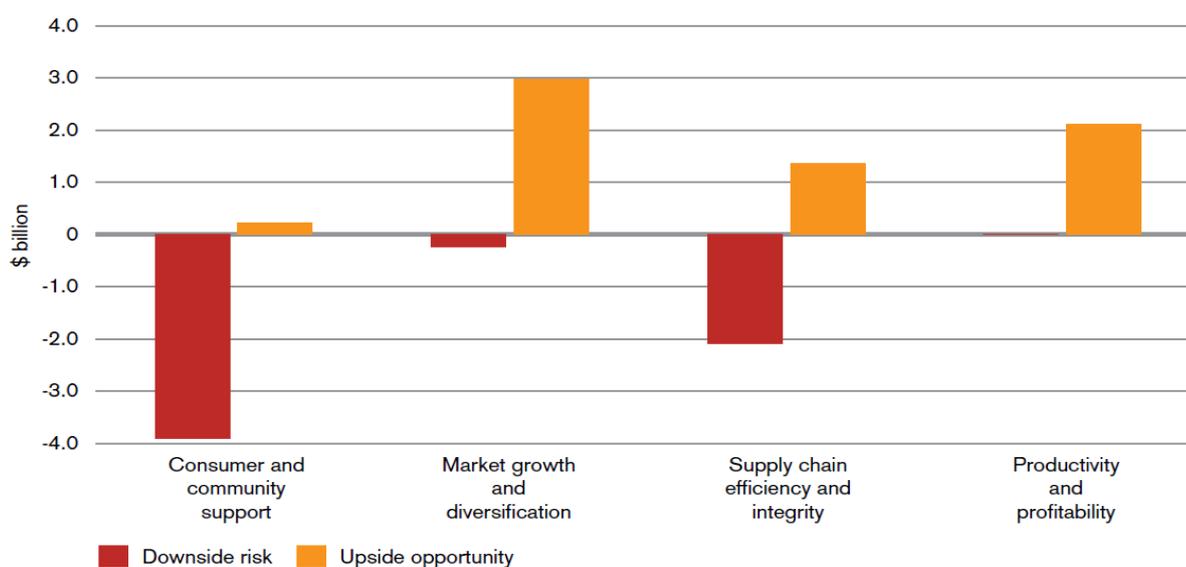


Figure 1: Forecast value of industry risks and opportunities to 2030<sup>iii</sup>

One of the clear emerging consumer expectations is that industries will be able to demonstrate and validate their sustainability. This expectation is providing the driver for the implementation of a range of new industry-led sustainability initiatives. These include sustainability frameworks, some of which identify Best Management Practices (BMPs), aimed at establishing industry wide targets against which progress can be measured. Many of these frameworks link to international sustainability initiatives, including the United Nations Sustainable Development Goals<sup>iv</sup> (SDGs) and the Global Reporting Initiative (GRI) Sustainability Reporting Standards<sup>v</sup>.

In a recent research report that looked at the value of sustainability accreditation, Rabobank identified that such initiatives may assist government, suppliers, industry and producers, specifically<sup>vi</sup>:

- Governments to manage national resources for future production capacity
- Brands and retailers to manage supply chain and operational risk
- Agriculture to protect its social licence to operate, and
- Producers to implement continuous improvement.

## 4.2 Summary of stocktake

As a first step in the project, GHD undertook a desktop stocktake of the major industry-led sustainability initiatives that are currently in place across Australia. The industries considered included beef, cotton, dairy, eggs, fishing, forestry, grains, horticulture, pork, rice, sheep meat, sugar, wine, and wool.

While it is recognised that there are a broad range of voluntary market accreditation programs in place that are linked to sustainability objectives, such as organic and Fairtrade, this project looked specifically at industry-led sustainability initiatives. In particular, the project focused on industry-wide sustainability frameworks and linkages to BMP guidelines and programs. It is noted that the project did not attempt to identify industry sustainability initiatives at the project level, which would have been an exhaustive task.

The stocktake was conducted using desktop research to broadly determine:

- Is there an industry-wide sustainability framework or reporting process?
- Has the industry developed Best Management Practices (BMPs)?
- Are there other industry-led sustainability initiatives, e.g. standards or programs, in place?
- What drove the development of the identified industry-led sustainability initiative/s?
- Who administers them and how are they funded?

The stocktake was intended to give a broad overview of the sustainability initiatives that are currently in place across Australian primary industries, which was then used to select a series of case studies to examine the involvement or otherwise of NRM regional bodies in their development and implementation.

The stocktake findings are summarised in Table 1.

Table 1: Summary of current industry-led sustainability frameworks and BMP programs

Industry	Industry RDC(s)	Industry Wide Sustainability Framework	Description	Link to BMPs	Other Industry BMPs and/or Sustainability Programs
<b>Beef</b>	Meat & Livestock Australia  Australian Meat Processing Corporation  LiveCorp	Australian Beef Sustainability Framework	The Australian Beef Sustainability Framework was launched in 2017 to meet the changing expectations of customers, investors and other stakeholders. The Framework defines sustainable beef production and tracks performance over a series of indicators annually. The Framework was developed by the Red Meat Advisory Council with funding from grass fed, feedlot and processor levies. It is managed by MLA.	The Framework does not endorse or accredit specific BMPs or measurement systems at the farm level. The Framework does include a number of detailed indicators for each priority area (e.g. minimise nutrient and sediment loss; balance of tree and grass cover; manage climate change risk; climate change adaptation and preparedness; efficient use of water; solid waste to landfill from processing) and seeks to use existing data to track industry performance where available.	There are a number of programs and projects operating at the regional level across Australia, such as the Grazing BMP program for grass fed beef in the Great Barrier Reef catchments, which are not directly linked to the Australian Beef Sustainability Framework but may indirectly contribute to the sustainability performance of the beef industry.
<b>Cotton</b>	Cotton Research and Development Corporation	Australian Grown Cotton Sustainability Report	The Australian Cotton industry released its first sustainability report in 2014 to demonstrate the industry's commitment to sustainability and continuous improvement. The reports are an initiative of the CRDC and Cotton Australia and benchmark how the industry is performing in terms of economic, environmental and social indicators, and charts this performance over time. It also sets high level targets for cotton in the areas of farm productivity, water use efficiency, carbon footprint, biodiversity and work-related injuries and fatalities.	myBMP is the industry-wide voluntary farm and environmental management system. myBMP provides a self-assessment mechanism, practical tools and auditing processes to ensure that Australian cotton is produced according to best practice. The program is administered by Cotton Australia and was initially developed in 1997. The current online system launched in 2010 comprises 10 modules including: energy and input efficiency; integrated pest management; sustainable natural landscape; pesticide management; soil health; and water management.	myBMP is the primary sustainability program in operation across Australian cotton growing regions. In recent years Cotton Australia has joined two international sustainability partnerships: the Cotton LEADS Program in partnership with the U.S. cotton industry, and the global sustainability program Better Cotton Initiative (BCI).

Industry	Industry RDC(s)	Industry Wide Sustainability Framework	Description	Link to BMPs	Other Industry BMPs and/or Sustainability Programs
<b>Dairy</b>	Dairy Australia	Dairy Industry Sustainability Framework	The Dairy Industry Sustainability Framework was developed in 2012 in response to increasing expectations from the community and customers that the industry is doing the right thing by people, animals and the planet. The framework includes goals and measures that seek to consider all issues along the value chain that have the potential to affect the sustainability of the dairy industry. The Australian Dairy Industry Council is the owner of the Australian Dairy Industry Sustainability Framework on behalf of the industry.	The Dairy Industry Sustainability Framework is linked to the industry's Dairying for Tomorrow program, which uses an extension approach to encourage the adoption of better practices, and to DairySAT, a self-assessment tool for Australian dairy farmers. The Dairying for Tomorrow program includes BMPs for improving nutrient, land and water management e.g. exclusion of stock from waterways, nutrient management plans, irrigation automation, managing land for conservation and biodiversity, managing noxious weeds, recycling water on farm.	There are a number of sustainability projects at the local level contributing toward the industry's sustainability goals, e.g. Dairy Australia Regional Development Programs work with regional NRM bodies to fence off and revegetate waterways.
<b>Fisheries &amp; Aquaculture</b>	Fisheries Research and Development Corporation	No	N/A	N/A	Despite there being no industry-wide sustainability framework or prescribed BMPs, certain sectors of the industry have embarked on their own programs and projects. One of the most recognised is Southern Rocklobsters' Clean Green Program. Launched in 2004, the Clean Green Program is a product certification program based on auditable standards of environmental and ecological sustainability, food safety, product quality, work place safety and animal welfare.

Industry	Industry RDC(s)	Industry Wide Sustainability Framework	Description	Link to BMPs	Other Industry BMPs and/or Sustainability Programs
<b>Forest &amp; Wood Products</b>	Forest and Wood Products Australia Limited	No	N/A	N/A	<p>Australian forest and wood product industry participants have the option of participating in both forest certification and chain-of-custody certification schemes. While there are internationally recognised schemes, the Responsible Wood Certification Scheme, administered by Responsible Wood, uses the Australian Forestry Standard as the relevant standard for certifying forest management. Participation in such schemes provides consumers with assurance that the wood product they are purchasing comes from a sustainably managed and certified forest. FWPA is also undertaking research to determine the value of environmental services provided by commercial forests and identify alternative funding mechanisms for these values.</p>
<b>Grains</b>	Grains Research and Development Corporation	No	N/A	N/A	<p>While the grains industry does have a number of R&amp;D investments targeted at technologies and practices that have both profitability and environmental outcomes, many of which are being delivered collaboratively with NRM regional bodies, there is no industry-wide sustainability framework or industry-wide BMP. The QLD grains industry has however developed a Grains BMP, which is a voluntary self-assessment system developed for the northern broadacre cropping enterprises in a collaborative partnership between the then Department of Agriculture, Fisheries and Forestry, AgForce and the Fitzroy Basin Association.</p>

Industry	Industry RDC(s)	Industry Wide Sustainability Framework	Description	Link to BMPs	Other Industry BMPs and/or Sustainability Programs
<b>Horticulture</b>	Horticulture Innovation Australia	No	N/A	N/A	Despite the challenge of developing an industry-wide sustainability framework for an industry as diverse as horticulture some commodity groups are establishing their own BMP programs supported by Hort Innovation program funding. These include the Australian Banana Growers' Council's Banana BMP and AUSVEG's EnviroVeg program.
<b>Pork</b>	Australian Pork Limited	National Environmental Sustainability Strategy	APL developed the National Environmental Sustainability Strategy 2010 - 2015 as a plan for ensuring the pork industry takes a proactive approach to sound environmental management. The APL has also developed National Environmental Guidelines for Indoor Piggeries and National Environmental Guidelines for Rotational Outdoor Piggeries, which are intended to deliver a national approach to environmental management of Australian piggeries.	To complement the National Environmental Guidelines, APL has also developed a number of tools, templates and calculators to assist operators stay up-to-date on best practice design and management. APL also released 6 BMP booklets in 2015 covering: odour; energy use; sedimentation and evaporation ponds; rotational outdoor piggeries; nutrient management; and design guidelines for anaerobic ponds.	None identified

Industry	Industry RDC(s)	Industry Wide Sustainability Framework	Description	Link to BMPs	Other Industry BMPs and/or Sustainability Programs
<b>Poultry</b>	Australian Egg Corporation Limited	Australian Egg Industry Sustainability Framework	The egg industry announced the development of a new Sustainability Framework in April 2018. The timeline for activity contained within the Framework is scheduled to take 9 months and the process will include defining what is socially, environmentally and economically responsible in the context of egg farming and providing a basis for continuous improvement. A key part of the process will be identifying issues of interest to the community. Australian Eggs will release a Sustainability Framework report in early 2019 that will detail how the egg industry is responding to the important issues identified by the public.	There is no intention to provide prescriptive farm scale BMPs, however, the Framework will include guidelines on efficient use of energy and water resources, minimising waste and managing farm land responsibly.	None identified
<b>Rice</b>	AgriFutures Australia	Ricegrowers' Association of Australia (RGA) Environmental Policy	As the peak industry representative body, the RGA seeks to support a proactive agricultural industry in the area of environmental management. Its environmental strategy is based on five key priority areas being water, air, soils, habitat and community as documented in its environmental policy.	The RGA's environmental aims are delivered through the Environmental Champions Program, which is a farmer driven accreditation program that provides a supportive environment for farmers to share knowledge about adaptive, best practice resource management and gain industry recognition of their achievements. The Program commenced in 2002 and is intended to be integrated with the rice industry's levy funded extension framework.	The industry has delivered a range of government funded environmental projects through its Environmental Champions Program network. Examples include projects on stubble management, on-farm soil testing, measuring greenhouse gas emissions, and biodiversity and threatened species conservation.

Industry	Industry RDC(s)	Industry Wide Sustainability Framework	Description	Link to BMPs	Other Industry BMPs and/or Sustainability Programs
<b>Sheep Meat</b>	Meat & Livestock Australia  Australian Meat Processing Corporation	In development	It is understood that the Sheep Council of Australia has committed to working with MLA to develop an Australian Sheep Sustainability Framework, which will be a whole-of-industry approach incorporating the wool and sheep meat value chains. It is intended that the framework will cover economic resilience, animal welfare, environmental stewardship, people and the community across the value chain, similar to the Australian Beef Sustainability Framework.	N/A	MLA and AWI have an existing partnership to deliver the Making More from Sheep program. The program, first developed in 2007, provides Australian lamb and wool producers with best-practice information, tools and training to help them build profitable and sustainable sheep enterprises. It incorporates producer events and online support and resources, including a 12-module online manual covering topics from soils and pasture to wool and meat marketing, animal health, genetics and farm sustainability.
<b>Sugarcane</b>	Sugar Research Australia Limited	No	N/A	The Smartcane BMP Program is the Australian sugar industry's voluntary program that allows growers to benchmark their current practices against industry standards, identify and improve practices, and determine steps they need to take to incorporate BMP into their enterprise. It is an online web based modular system that includes BMPs for soil health and plant nutrition management; pest, disease and weed management; drainage and irrigation management; crop production and harvest management; natural systems management. Smartcane BMP is administered by CANEGROWERS. It receives support from the Queensland Government.	Smartcane BMP has been aligned with the Bonsucro Production Standard and its indicators. Bonsucro is a global non-profit organisation promoting sustainable sugarcane production, processing and trade around the world. It has in excess of 500 members from over 40 countries representing all stages of the sugarcane supply chain.

Industry	Industry RDC(s)	Industry Wide Sustainability Framework	Description	Link to BMPs	Other Industry BMPs and/or Sustainability Programs
<b>Wine</b>	Wine Australia	Entwine Australia	Entwine is the Australian wine industry's sustainability program established to support wine growers and makers demonstrate and improve the sustainability of their businesses. The program incorporates two elements, being the reporting of sustainability metrics to the Australian Wine Research Institute (AWRI) and participation in an approved certification program. Entwine was developed by the Winemakers' Federation of Australia (WFA) in consultation with industry and with support from the Australian government. Management of the Program transferred from the WFA to the AWRI in 2015.	The Entwine certification component covers the fundamental components of sustainability, i.e. economic, social and environmental, and can be applied to both vineyards and wineries. Program participation is voluntary and participants can choose the certification program that best suits their businesses, including: ISO 14001; Freshcare Environmental Viticulture/Winery; Freshcare Environmental Viticulture Code of Practice; Freshcare Environmental Winery Code of Practice; and Sustainable Australia Winegrowing.	None identified
<b>Wool</b>	Australia Wool Innovation	In development	As outlined for Sheep Meat, it is understood that the Sheep Council of Australia and MLA intend to develop an Australian Sheep Sustainability Framework, which will be a whole-of-industry approach incorporating the wool and sheep meat value chains. It is intended that the framework will cover economic resilience, animal welfare, environmental stewardship, people and the community across the value chain, similar to the Australian Beef Sustainability Framework.	N/A	As outlined above, MLA and AWI have an existing partnership to deliver the Making More from Sheep program. The program, first developed in 2007, provides Australian lamb and wool producers with best-practice information, tools and training to help them build profitable and sustainable sheep enterprises. Similar to other industries, there are also examples of individual organisations or regional groups undertaking their own sustainability initiatives. For example, New England Wool has developed the "SustainaWOOL™ Integrity Scheme" as an accreditation scheme for Australian wool growers.

### 4.3 Observations

Of the 14 industries reviewed, 5 have developed strategies or frameworks that aim to identify, track and report progress against a set of sustainability indicators including the beef, cotton, dairy, pork and wine industries. The development of each of these strategies or frameworks has either been led by or is supported by the industry RDC.

The Australian egg industry has commenced the development of a sustainability framework and it is reported that the Sheep Council of Australia and MLA intend to develop an Australian Sheep Sustainability Framework incorporating both sheep meat and wool. The development of all of these frameworks is reported as being driven by the desire of the industry to demonstrate its commitment to sustainability and as a platform for continuous improvement.

Of the existing sustainability frameworks, the cotton, dairy, pork and wine frameworks are linked to voluntary industry BMP programs, which include a mix of approaches such as tools, guidelines and accreditation processes. Neither the beef or egg industries intend to link their frameworks to prescriptive farm level BMPs, however, the beef framework will promote continuous improvement through tracking of priority areas (e.g. minimising nutrient and sediment loss; balancing tree and grass cover; managing climate change risk; climate change adaptation and preparedness; efficient use of water; solid waste to landfill from processing), while the egg framework will include guidelines on efficient use of energy and water resources, minimising waste and managing farm land responsibly.

While not having an industry-wide sustainability framework and reporting approach, the rice industry's peak body, being the Ricegrowers' Association of Australia, has an environmental policy which is based on five key priority areas, being water, air, soils, habitat and community. The policy is delivered through the industry's Environmental Champions Program, which is a farmer driven accreditation program for farmers to share knowledge about adaptive, best practice resource management.

The sugar industry also does not have a formal industry-wide sustainability framework, however, the industry does have a long established and widely recognised BMP program. The Smartcane BMP Program is also led by the peak industry body rather than the RDC and is a voluntary program that allows growers to benchmark their current practices against industry standards, and to identify and improve their practices. The program is aligned with the global Bonsucro Production Standard.

In some industries, such as horticulture and fisheries, it is likely that the diverse commodity make-up prohibits the development of an industry-wide framework. In these instances, specific sectors of the industry have advanced their own strategies and BMP programs, for example, Southern Rocklobster's Clean Green program, Banana BMP and EnviroVeg.

While the benefits of industry-led sustainability initiatives include industry ownership of goals and targets, and market-based rather than regulatory drivers for adoption of BMPs, there are a number of risks associated with the sector specific approach to their development. In particular, each sector has identified different indicators and measures of sustainability and is using different methods of collecting data to enable them to report their achievements. This approach is not only likely to lead to duplication of efforts in data collection and reporting, it also limits the ability of the Australian agricultural industry overall to tell a consistent and coherent story in relation to its sustainability credentials.

A further risk is that the emphasis of the indicators identified in the frameworks tends to be based on measuring the adoption rates of various BMPs, rather than on monitoring or reporting biophysical outcomes. Again, this might be appropriate for a sector specific approach to demonstrating sustainability credentials, however, it is difficult to link these measures to regional NRM priorities, and in turn, it does not provide a coordinated approach to measuring and monitoring natural resource condition across the Australian landscape.

Finally, a number of challenges still exist in both developing sustainability frameworks and defining BMPs for those industries that tend to be more geographically dispersed and that have greater variation in their farming systems, e.g. broadacre cropping and livestock industries. While more intensive industries such as sugar, cotton and dairy have long established BMP programs, industries such as beef, sheep meat, grains and wool will have greater difficulty in collating, monitoring and reporting industry-wide progress where regionally specific BMPs are likely to be more appropriate.

## 5. Involvement of NRM Regional Bodies

### 5.1 NRM regional bodies

NRM bodies across Australia lead regional planning, prioritisation and delivery of activities to support environmental protection and sustainable agricultural practices, which serve to increase landscape resilience, farm productivity and natural capital condition.

There are 56 NRM regional bodies in Australia including Marine NRM group, OceanWatch Australia. For the 55 land-based NRM regional bodies there are differences in the structures, functions and reporting lines in different States and Territories (Table 2). In NSW, Victoria, South Australia and Tasmania the NRM regional bodies are statutory, their functions are specified in legislation, and the Boards report directly to the Minister of the relevant Department. In Queensland, the Northern Territory, Western Australia and the ACT, the NRM regional bodies are non-statutory, their functions are determined by the groups themselves and they report only to their stakeholders.

The bodies play a significant role in delivering both state and federal investments in NRM through collaboration with community and farming groups. NRM regional bodies may receive funding from a number of sources but have typically been reliant on government funding through their respective State government NRM program arrangements as well as through successive Federal government funding rounds, including Phase 2 of the current National Landcare Program (i.e. NLP2).

Table 2: Summary of Australian NRM regional bodies' status, functions and accountability

Jurisdiction	Title of regional body (number)	Status	Function and accountability	Key State Agency
NSW	Local Land Services (11)	Statutory ( <i>Local Land Services Act 2013</i> )	Works with land managers and community to sustainably improve primary production, Board reports to Minister	NSW Department of Industry
VIC	Catchment Management Authorities (10)	Statutory ( <i>Catchment and Land Protection Act 1994</i> )	Coordinates the States sustainable use of land, water and biodiversity resources based on catchment areas, Boards report to Minister	Department of Environment, Land, Water and Planning
SA	Regional NRM Boards (8)	Statutory ( <i>Natural Resources Management Act 2004</i> )	Works with community to define NRM issues, progress solutions and advise government, Board reports to Minister	Department for Environment and Water
WA	Regional Catchment Groups or Catchment Councils (7)	Independent	Functions decided by groups / catchment councils, reports to stakeholders	Department of Primary Industries and Regional Development
QLD	Regional Committees, Groups or Organisations (14)	Non statutory	Functions decided by the groups, report to shareholders	Environment, Land and Water
TAS	Regional NRM Bodies (3)	Statutory ( <i>Natural Resource Management Act 2002</i> )	Responsible for prioritisation and delivery of NRM, required to nominate member to NRM council and report to Parliament	Department of Primary Industries, Parks, Water and Environment

<b>NT</b>	Territory Natural Resource Management (1)	Non statutory	Functions decided by regional groups, report to stakeholders	Department for Agriculture and Water Resources & Department for Environment and Energy
<b>ACT</b>	ACT Natural Resource Management (1)	Non statutory	Functions decided by group, reports to stakeholders	Environment, Planning and Sustainable Development Directorate
<b>Federal</b>	Marine NRM (1)	Non statutory	Works to improve environmental practices, protect and restore important marine species and habitats, reports to stakeholders	N/A

## 5.2 Involvement in the development and implementation of industry-led sustainability initiatives

The second step of this project was to develop a series of industry case studies to examine the level of involvement of NRM regional bodies in both the development and implementation of industry-led sustainability initiatives. It should be noted that the project sought specifically to determine the level of involvement of NRM regional bodies in the development and implementation of the identified industry-led sustainability initiatives rather than to determine the level of collaboration in other programs and activities these groups undertake more generally, which may be many and varied.

In particular, the case studies sought to determine the level of involvement of the NRM regional bodies in:

- Identifying the key environmental issues facing the industry
- Defining best management practices
- Identifying and/or providing baseline data
- Setting targets for BMP adoption and/or biophysical indicators
- Monitoring of outcomes, i.e. BMP adoption and/or changes in biophysical indicators
- Reporting of outcomes
- Providing extension services, and
- Any other involvement in the process.

The intention of obtaining this information was not to assess whether there is a wrong or right way to develop and implement such initiatives, but rather to help establish at what stage or stages in the process there is a case for increased integration of activities and to consider the various approaches to achieving this integration and collaboration.

The case studies were developed based on a combination of publicly available information and telephone interviews with relevant industry contacts. The eight sustainability initiatives selected for the case studies were:

- Australian Beef Sustainability Framework
- Australian Egg Industry Sustainability Framework
- Cotton Australia's myBMP program
- Dairy Industry Sustainability Framework
- EnviroVeg Program
- Ricegrowers Associations' Environmental Champions Program
- Smartcane BMP Program, and
- Southern Rocklobster Ltd's (SRL) Clean Green Program.

A summary of the findings from the case studies is provided in the following subsections. The full case studies are provided in section 9.

### **5.2.1 Identifying the key environmental issues facing the industry**

The vegetable industry was the only one of the case studies to have explicitly involved NRM regional bodies in identifying the key environmental issues facing the industry in the development of its sustainability initiative. Early in the development process for EnviroVeg, the industry received funding through the EMS Pathways to Sustainable Agriculture Program to develop partnerships with NRM regional bodies. This helped ensure that the program content was compatible with the objectives and priorities of the NRM regional bodies. With new funding commencing in March 2017, the EnviroVeg program has recently been reviewed and has undergone significant redevelopment. This redevelopment has so far being undertaken without the direct involvement of NRM regional bodies, however it is intended that the updated EnviroVeg program will develop regional guides, which outline NRM priorities for each region.

### **5.2.2 Defining best management practices**

Of the BMP programs considered in the case studies, NRM regional bodies provided technical input to content for the rice industry's Environmental Champions Program and also had some involvement in reviewing BMPs for the cotton and sugar industries. In the sugar industry, however, the definition of BMPs has been the source of some conflict between the industry and the NRM regional bodies due to differing opinions about priority outcomes especially with respect to water quality.

### **5.2.3 Providing baseline data**

The sugar industry was the only industry where NRM regional bodies had any direct involvement in providing baseline data. Due to previous programs encouraging adoption of best practices in the reef catchments, baseline data was available, both for the level of adoption of best practices and for water quality parameters. This enabled the Smartcane BMP program to be pitched at the appropriate level to encourage further adoption of best practices.

### **5.2.4 Setting targets, either for BMP adoption or for biophysical indicators such as water quality, biodiversity, salinity**

None of the industry initiatives included in the case studies has involved the NRM regional bodies in setting targets for BMP adoption, which was largely seen as an industry responsibility. There has been some involvement of the NRM regional bodies in setting targets for biophysical indicators, for example:

- The sugar industry thought that the NRM regional bodies may have been involved in setting the water quality targets for the reef catchments, and
- The beef industry is planning on involving the NRM regional bodies in identifying regionally specific targets for 'balance of tree and grass cover' that can then be scaled up to form a national indicator.

NRM regional bodies have in turn referenced the dairy industry targets in their strategic plans, which enables them to demonstrate that what they are doing is helping the industry to meet its targets.

### **5.2.5 Monitoring of outcomes, either BMP adoption rates or changes in biophysical indicators**

None of the industries currently involve the NRM regional bodies in monitoring of BMP adoption rates.

In the vegetable industry there may be a future role for NRM regional bodies in reviewing the progress of EnviroVeg and identifying target areas where greater grower uptake may be required to address regionally specific environmental issues.

In the case of the sugar industry, there has been a couple of projects involving CANEGROWERS' extension services and NRM regional bodies in on-farm and catchment monitoring. This approach enables growers to see the impact of changes in practice on water quality, increasing the likely uptake of BMPs, but it is expensive to implement.

To assist with identifying future data and monitoring requirements, the beef industry has been carrying out a stocktake of third party organisations including NRM regional bodies, to understand what activities are currently occurring in terms of research, adoption and data systems. This will enable the industry to identify any gaps and duplication to improve future coordination between industry and these external organisations.

### **5.2.6 Reporting of outcomes**

None of the industries currently involved NRM regional bodies in reporting on outcomes.

### **5.2.7 Providing extension services to increase BMP adoption**

In the rice, cotton and sugar industries NRM regional bodies have been involved in providing extension services to support implementation of their sustainability initiatives to varying degrees:

- The rice industry has a collaboration agreement with Murray LLS to deliver training programs and field days
- The cotton industry previously had some co-funding arrangements with NRM regional bodies but this was prior to the CottonInfo regional extension model being implemented, and
- While the sugar industry does not involve the NRM regional bodies directly in providing extension, indirectly some extension is funded by Reef Trust Programs, which are managed by NRM regional bodies.

Not all of the industry run programs will have the resources to provide all the expertise necessary for delivery. The involvement of NRM regional bodies has the potential to provide increased capacity and reach as well as additional technical expertise. The beef industry for example, recognises that there are potential opportunities for involving NRM regional bodies in extension activities including in relation to the 'balance of tree and grass cover' and 'managing climate change risk' priorities.

### **5.2.8 Other involvement**

Other involvement of NRM regional bodies in developing or implementing the case studied sustainability initiatives tends to have been on an *ad hoc* or project-by-project basis rather than as the result of any formal arrangements. Examples of other involvement of NRM regional bodies included involvement in funding or supporting on-ground projects, such as in the rice and dairy industries, and awareness raising in support of the program, such as for the Southern Rocklobster Clean Green Program. Industry contacts also identified that there may be opportunities to link grant and incentive programs funded by NRM regional bodies with landholder involvement in sustainability initiatives, for example, in the cotton industry there have been examples of participation in myBMP being a criteria for eligibility for certain NRM regional body incentive rounds.

## **5.3 Observations**

From the eight case studies developed to further examine the involvement or otherwise of NRM regional bodies in industry-led sustainability initiatives, it was found that there has not been consistent or formal integration of activities. Again it is noted that this does not mean that there are not other areas of collaboration or engagement amongst industry bodies and NRM regional bodies, but rather that examples of collaboration relating to industry-led sustainability initiatives has been limited.

Based on the case study findings, where collaboration has occurred, it has generally been on an *ad hoc* or project-by-project basis rather than as part of a formal development, implementation and/or review

process. In some cases, collaboration has been the result of existing relationships between staff in the different organisations.

Despite NRM regional bodies undertaking planning and prioritisation of NRM issues in their respective regions, the vegetable industry was the only one of the case studies to have explicitly involved NRM regional bodies in identifying the key environmental issues facing the industry in the development of its sustainability initiative. The involvement of NRM regional bodies in this instance, however, happened early in the development process for EnviroVeg and was an outcome of funding from the Federal Government's then EMS Pathways to Sustainable Agriculture Program. NRM regional bodies have not yet been involved in the redevelopment of the AusVeg program with time and resourcing identified as a key barrier rather than a lack of appreciation of the value that NRM regional bodies might add to the process. The cotton industry also indicated that the strategic plans of the relevant NRM regional bodies were reviewed in the initial development of myBMP's program content.

The limited involvement of NRM regional bodies in identifying the key environmental issues facing the industry may then be a reason that there is a flow through effect to limited or no involvement of the bodies in providing baseline data or setting, monitoring and reporting on biophysical targets and outcomes. The sugar industry indicated the greatest level of involvement at these stages of the development and implementation process of its sustainability initiative, however, it seems that the strong national focus, and therefore funding toward, water quality outcomes for the Great Barrier Reef has been an important driver for this collaboration.

While the involvement of the NRM regions in identifying environmental issues and monitoring and reporting of biophysical outcomes would seem a natural fit, it is likely that many of the industries face issues of scale in developing and implementing industry wide sustainability frameworks and BMPs. That is, particularly for industries that have a national footprint, there is a challenge in reviewing strategies and datasets from 55 different NRM bodies, which by definition, are regionally specific.

As noted in section 4.3, the emphasis of the indicators identified in the industry sustainability frameworks tends to be based on measuring the adoption rates of various BMPs, rather than on monitoring or reporting biophysical outcomes. Setting and monitoring targets for BMP adoption seems to be a clear role for the respective industries, although many identified that there is a potential role for NRM regional bodies in providing extension services to increase BMP adoption. In addition, a number of the industries identified that NRM regional bodies may be a potential source of financial incentives to encourage practice change. Examples were provided along these lines, where participation in an industry-led sustainability initiative has been directly linked to landholder eligibility for grant or incentive funding offered by NRM regional bodies.

As part of developing the industry case studies, the opportunity was also taken to seek industry feedback on where there might be common value propositions for greater integration of the activities of the NRM regions with industry sustainability initiatives, as well as to consider principles for successful collaboration. Despite the case study findings pointing to limited involvement of the NRM regional bodies in developing and implementing the identified industry-led sustainability initiatives, interviewees could see value in greater integration of activities at all stages of the process. Again issues of scale and resourcing constraints were key reasons identified for why integration may currently be limited. Tensions that might arise from competing priorities around environmental versus agricultural production outcomes, and attribution of outcomes to the respective parties were also raised as barriers to effective collaboration. In light of these barriers, the need to build trust through increased understanding and appreciation of the roles and responsibilities of both industry and NRM regional bodies, establishing a common language and working to the strengths of the respective parties were identified as key principles for successful collaboration.

## 6. Common Value Propositions

### 6.1 Potential for closer collaboration

A key driver for this project was the recognition by a number of stakeholders of the potential for greater integration of the activities of NRM regional bodies with those of the industry-led sustainability initiatives. The National Farmers' Federation (NFF) identified that not only do industry and NRM regional bodies share the same vision for sustainable, profitable and productive farms, there is opportunity to strategically connect and leverage the investments agricultural industries and government make in delivering sustainable farming initiatives with the work and investment of the NRM regional bodies<sup>vii</sup>. Indeed, a commitment to the promotion of closer collaboration underpinned a Memorandum of Understanding signed between the NFF and NRM Region Australia in June 2017.

In presenting its case to pursue the need for closer collaboration, the NFF depicted the linkages between the funding and priorities of industry and NRM regional bodies in a diagram as shown in

Figure 2

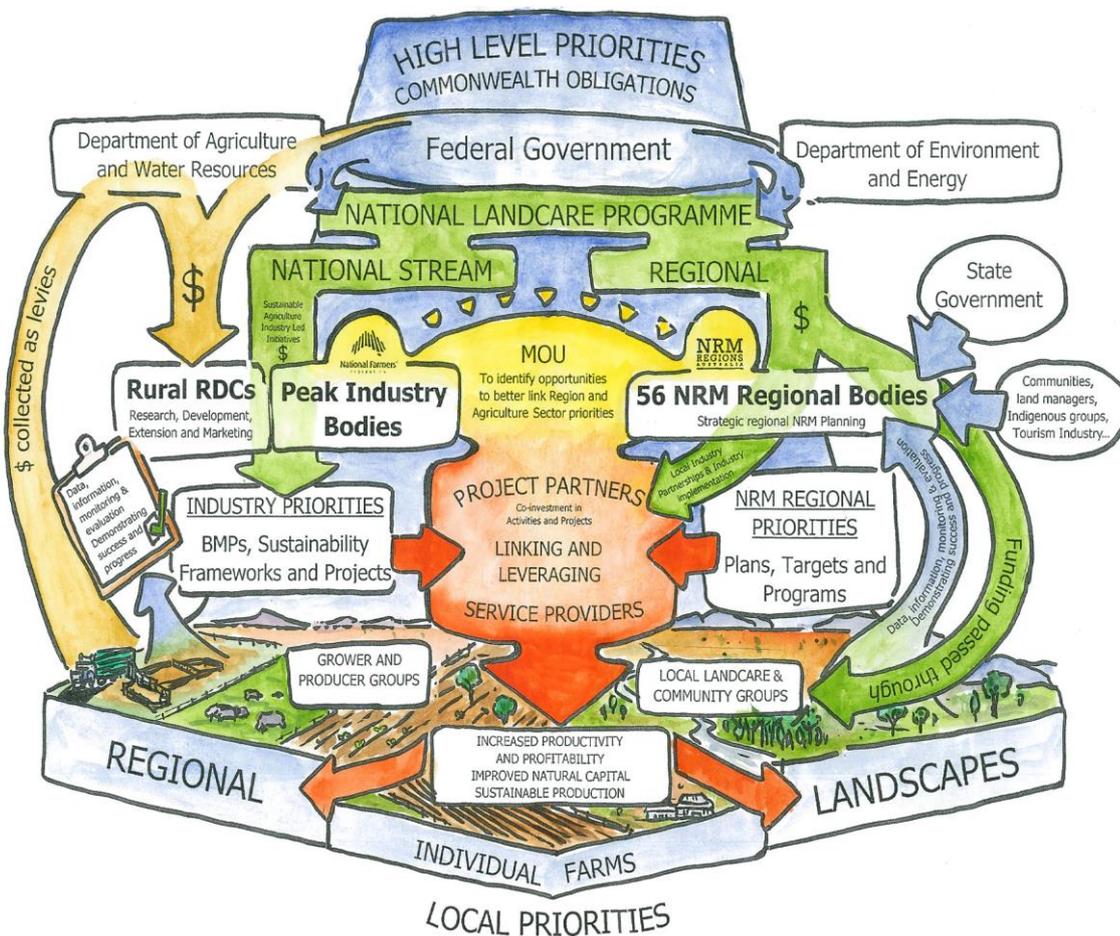


Figure 2: Linkage between the funding and priorities of industry and NRM regional bodies (Source: NFF)

The Federal Government also recognises the need for closer collaboration amongst industry bodies and NRM regional bodies to maximise both the effectiveness and efficiency of its major investments in sustainable agriculture and environmental outcomes, which includes:

- Matching industry levies to fund the research, development and extension priorities of the 15 rural RDCs across agriculture, fisheries and forestry industries in Australia to achieve improvements in productivity, profitability, sustainability and community outcomes (approximately \$840 million in levies, charges and Commonwealth matching payments was made to 18 levy recipient bodies in 2017/18, including the 15 RDCs<sup>viii</sup>)
- Additional funding to the rural RDC network through its Rural Research and Development (R&D) for Profit program, which provides \$180.5 million over the eight years to 30 June 2022 to boost national coordination and strategic research across industries<sup>ix</sup>, and
- Funding of national NRM priorities through NLP2, which will provide approximately \$1 billion over the five year period to 30 June 2023 to fund a range of measures to support natural resource management and sustainable agriculture, and to protect Australia's biodiversity<sup>x</sup>.

The major component of NLP2 is the Regional Land Partnerships Program, the focus of which is connecting NRM regional bodies with new organisations not previously engaged with the program in order to increase leveraging opportunities. The Australian Government has therefore actively sought increased participation from farming system groups, research, and industry organisations in the on-ground delivery of environmental and agricultural outcomes at a local and regional level. In this way they are hoping to better align public and private investment, and ensure greater effectiveness through joint efforts.

In August 2018, the Federal Government announced that 47 of the 55 land based NRM regions had been successful in obtaining funding to deliver Regional Land Partnerships Program<sup>xi</sup>, which comprises \$450 million of the \$1 billion in Federal Government funding over 5 years. All of the NRM regional bodies in New South Wales, the Northern Territory, the Australian Capital Territory, Victoria and South Australia were successful tenderers, but four NRM regional bodies in Queensland and two in Tasmania have not received confirmation of funding through this component of NLP2.

During the implementation of NLP2 there will also be an increasing focus on agriculture, and in particular, on increasing the adoption of sustainable land management practices. Regional Landcare Facilitators funded by the Program have become Regional Agriculture Landcare Facilitators, with their major role now being to support the adoption of sustainable practices on private land.

Another major component of NLP2 is the Smart Farms Program, which has as its key focus increasing the adoption of best management practices to increase sustainability. Outcomes of the first round of funding under the Smart Farming Partnerships grants program and Smart Farms Small Grants program were also announced in June and July of this year<sup>xii</sup>. While there is only limited information that is publicly available on the successful applications, it appears that only one of the successful applicants for the Smart Farming Partnerships program listed both peak industry organisations and NRM regional bodies as consortium members. Further, there was limited direct reference to overarching industry sustainability frameworks and BMP programs in the brief summary descriptions provided for the 15 successful applications.

Given the significant investments that are being made in sustainable agriculture and environmental priorities, both directly from primary producers and landholders through industry levies and rates, and from Australian tax payers through Federal Government investments, there is a clear need to ensure their ongoing efficiency and effectiveness. Having identified that there may be the potential for greater integration of the activities of the NRM regional bodies with those of the industry-led sustainability initiatives, this project has provided the opportunity to seek feedback directly from industry, NRM regional bodies and government representatives to identify those areas where common value propositions exist, and further, to consider the potential policy and program settings to facilitate and encourage greater collaboration where there is common value.

## 6.2 Outcomes from thought-leaders workshop

Having gained a better understanding of the current status of industry-led sustainability initiatives across Australian primary industries and the involvement or otherwise of NRM regional bodies in their development and implementation, the third and final stage of this project was to convene a thought-leaders

workshop to define the common value propositions for greater integration. The workshop also provided the opportunity to consider the potential mechanisms to enable greater integration.

The workshop was held in Canberra on 25 September 2018 and attended by 15 participants, with representatives from industry, including the NFF and RDCs, the NRM regional bodies, and Australian Government agencies, including the Department of Environment (DoE) and the Department of Agriculture and Water Resources (DAWR). Having representatives from industry, NRM regional bodies and government provided the opportunity to obtain the perspectives of each party in relation to the integration of their respective activities.

### 6.2.1 Needs and offerings of industry, NRM regions and government

As outlined in section 3.3, to tease out the common value propositions, the workshop approach was adapted from the *Value Proposition Canvas*<sup>xiii</sup> (Figure 3). While typically a business marketing tool, the *Value Proposition Canvas* provided a structured approach to gaining the different perspectives of the workshop participants as to why they might need to better integrate their activities, and what they bring to, or offer, such collaboration.

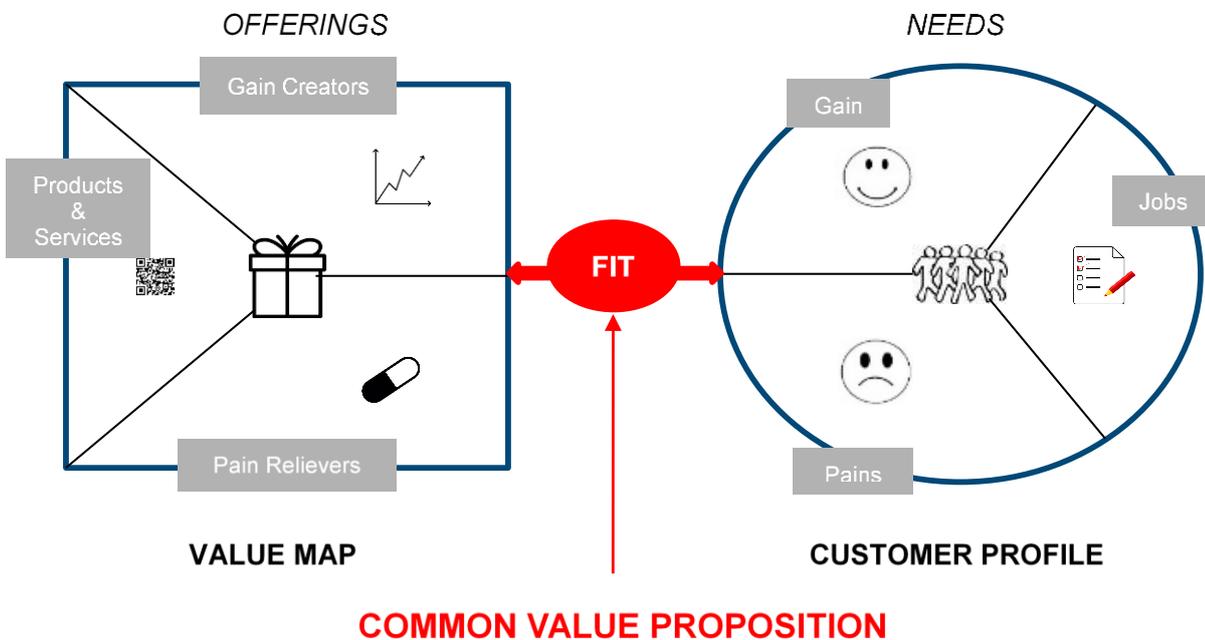


Figure 3: Adaptation of the Value Proposition Canvas

Using this approach, workshop participants from government, industry and the NRM regional bodies were therefore asked to work together in their groups to identify and rank their respective needs and offerings with respect to engaging with each other. Common value propositions are then able to be identified as areas where there is alignment in the organisations’ respective needs and offerings.

In describing their respective needs, the representatives from industry, NRM regional bodies and government agencies were asked to think of themselves as the ‘customer’, identifying and ranking their different *Jobs*, *Pains* and *Gains*. Where *Jobs* reflect what they are trying to get done – i.e. their respective roles and responsibilities, tasks and problems to be solved, *Pains* are those things that are hard, annoying or risky before, during or after getting the job done, and *Gains* are the outcome or benefits that they are trying to achieve, which might include cost savings. The descriptions in the order provided by each group on the day are captured in Table 3.

Table 3: Workshop responses to describe and order their respective needs

Group	Industry	Government	NRMs
<b>Jobs</b>	Achieve recognition and benefits for producers using good practices	Policy development – resolving complex policy problems	Whole of system footprint, i.e. across industries and issues, whole bio-economy, all elements in landscape, national through to local, minimise perverse outcomes to maximise benefits
	Improve production on farm	High level outcome reporting	Stewardship responsibility
	Tap into drivers for change	Facilitate stakeholder engagement	Embedding resilience
	Meet social licence to operate	Supporting Ministry	Integrated regional strategies
	Meet market access needs	Participate in international agreements	Maintaining market access for all industries e.g. biosecurity and traceability
	Support growers to adopt BMPs	Regulation	Knowledge brokers
	Facilitate and empower industry to address challenges	Funding provision of information	Facilitating practice change for sustainable industries
	Provide continuous improvement opportunities	Delivering funding programs	Engaging communities
	Maintain and enhance biophysical assets		Engaging all landholders
	Increase uptake of environmental practices on farm		Supporting uptake of best practice
	Utilise and maintain resource base		Statutory responsibilities
	Generate and capture data		Leveraging investment
	Setting and communicating targets		Evidence based investment
	Understanding current and future pressure points		Governance and accountability
	Communicate back to stakeholders		
	Produce outputs		
	Provide extension and training needs for growers/industry		
	RD&E capability and effort		
	Prioritise R&D capability and effort		
	Direct future R&D funds		
Meet government regulations			
Track and demonstrate benefits of practice change			
<b>Pains</b>	Shifting community expectations – social licence	Erosion of trust	Lack of clear and efficient entry points to other stakeholders
	Market access	Perceived conflicting objectives	Funding structures – competitive sources and funding cycles
	Cross sector and cross commodity collaboration	Difficulty in achieving consensus	Silos in policy, legislation and funding
	Communicating value of local level extension	Economic risk of bottom 20% of farmers	Lack of cross-government cooperation and a COAG mechanism
	Finding the “hot button” for growers	Independent information, lack of data and evidence	Lack of link of natural resource asset base to national accounts
	Tailoring BMPs to producer entry point	Mixed performance of NRM regions and industry bodies	Lack of long-term continent wide environmental data and trends
	Answering questions for multiple stakeholders	High overheads of some NRM bodies	
		Reduced skills at government level for community engagement	
	Declining funding		

Group	Industry	Government	NRMs
<b>Pains</b>	<p>Accessing good information – quality of data</p> <p>Understanding and utilising data</p> <p>Duplication of data entry and systems</p> <p>Value to producers of implementing BMPs</p>	<p>Lack of resources for staff to engage</p>	<p>Lack of agreed sustainability metrics</p> <p>Common language for data collection, sharing and technology</p> <p>Systemic lack of connection between NRMs, RDCs, etc</p> <p>Ad-hoc, untargeted engagement and investment of other stakeholders</p> <p>Understanding and involving NRMs in research from the start</p> <p>Reporting requirements</p> <p>Natural system variability e.g. drought</p>
<b>Gains</b>	<p>Improve profit on farm</p> <p>Increase industry profitability</p> <p>Market access</p> <p>Social licence to operate – benefit industry image</p> <p>Streamlining automation in capture and aggregating of data</p> <p>Data alignment and consistent nomenclature based on productivity, profit and sustainability reported using a common database</p> <p>Navigate and simplify practice – reporting indicators for practices</p> <p>Ask and answer the same questions once rather than 4 or 5 times</p> <p>Complementary benefits of sustainable agricultural activities</p> <p>Harness productive sector energy for environmental outcomes</p> <p>Creating connections between production and biophysical outcomes</p> <p>Reduce resource wastage</p> <p>Collaborate effectively and reduce red tape and collect same information</p>	<p>Public right to a cleaner environment</p> <p>Social licence to operate</p> <p>Practice change at scale and connected</p> <p>Recognition of environmental services provided by landholders</p> <p>Market access for industry</p> <p>Higher political profile for NRM</p>	<p>Holistic strategies – whole system approach enables addressing complex, wicked problems</p> <p>Effective planning for whole of system</p> <p>Strong communities</p> <p>Environmental protection and improvement</p> <p>Sustainable agriculture</p> <p>Diverse and long-term partnerships</p> <p>Continent wide network</p> <p>Evidence based outcomes</p> <p>Bridging research to implementation</p> <p>Accountable and strong governance</p> <p>Leverage efficiencies through linking investment and work</p> <p>Efficient and strategic engagement and capacity support models</p> <p>Regionally based expertise</p> <p>Linkages to Traditional Owners and public land owners and users</p> <p>Data collection, reporting and thresholds development</p>

In describing their respective offerings, each group was then asked to think of themselves as the ‘provider’, identifying and ranking their different *Products & Services*, *Pain Relievers* and *Gain Creators*. *Products & Services* included what the sector can provide to the others, *Pain Relievers* being how these products and services can help alleviate others’ difficulties, and *Gain Creators* being how these products and services can create benefit or add value to others. The descriptions in the order provided by each group on the day are captured in Table 4.

Table 4: Workshop responses to describe and order their respective offerings

Group	Industry	Government	NRMs
<b>Products &amp; Services</b>	Long-term outcomes – practice change and asset increase	National leadership and coordination promoted internationally	Practice change, i.e. demonstrations, whole farm planning, resilience planning and scenarios, education
	Access to producers, farmers, land managers	Smarter more effective engagement to industry sector needs	Regional plans across industries and issues
	Communications network	Work more towards data collaboration and global alliance	Regional bodies across Australia have 5,000-6,000 skilled staff on ground to support R&D uptake in locally relevant situations
	Systems – engagement across industry and knowledge of industry	Create platforms for sharing data	Expert advisors in biosecurity, NRM, emergency, agriculture, social capacity
	Credibility and trust	Provide point of contact / entry point to whole of government e.g. use of drones, communications, emerging technologies	Communications officers
	Advocacy	Fund data and information priorities, R&D investments and access to data	Regulation, compliance and assurance
	Data – adoption, change, benchmarking	Invest where the market is under investing (market failure)	Preparedness, recovery and response
	BMPs, tools and frameworks		Project managers with ability to deliver integrated multi benefit programs
	R&D – funding and knowledge		Knowledge of community and environment in our regions
	Extension and adoption support RDC and industry collaboration		Regionally based targets for natural resources that are evidence-based and community relevant Data and monitoring
<b>Pain Relievers</b>	Access to majority of target stakeholders – farmers and land area	Integrated policy development, e.g. drought, NRM	Practice change experts
	Enable extension and adoption	Put case to government of importance of NRM – intrinsic value, value to productivity	Trustworthy source of information
	Connect government, NRM, R&D, etc. to growers	Streamline regulation and create level playing field between industries	High customer satisfaction levels
	Effect policy change	Work towards consistency of reporting and data	Knowledge brokers – linking and information flow conduits
	Give and capture credible data – for market access and local/regional issues	Streamlining reporting	Build and demonstrate social licence
	Continuity of extension and outcomes		Regional overview of extension and delivery capacity across sector
	Self-regulation – reducing red-tape and leading practice change		Helping deliver industry sustainability frameworks
	Funding application benefits including industry expertise and access		Assurance frameworks
	Unbound by government remits		Delivering market access and sustainable natural resource base
	Funding access through RDCs, etc.		Metrics and data collection
<b>Gain Creators</b>	Preferred market access	Provide national leadership, coordination and report internationally	Planning that considers international, state and other targets in an integrated fashion e.g. systems, pests, weeds
	Defensible social licence		
	Better understanding of landscape outputs	Have a story and need to tell it	

Group	Industry	Government	NRMs
<b>Gain Creators</b>	<p>Long-term positive change</p> <p>Investment prioritisation</p> <p>Consistent messaging from multiple stakeholders</p> <p>Transparent, harmonised data (metrics)</p> <p>Good policy outcomes and change</p> <p>Agricultural sector supporting vibrant communities</p>	<p>Supporting accreditation, certification, sustainability</p> <p>Facilitating market access</p>	<p>Access to robust, long-term regional strategic planning based on area and community needs</p> <p>Protect natural resource base for sustainable industry</p> <p>Expanded networks</p> <p>Trusted governance models and project management</p> <p>Whole farm system approach – viability through multiple inputs and outcomes</p> <p>Cross commodity and sectoral approach</p> <p>Leveraging funding and efficiency of resources e.g. from multiple investment streams</p> <p>Market access – NRM metrics and data, biosecurity, natural asset management, soil health and biodiversity</p> <p>Continuity over time with capacity to adapt</p> <p>Social licence – NRM and environmental credentials</p> <p>Local and regional knowledge</p>

In reflecting on the workshop approach used to identify the respective needs and offerings, some participants questioned whether the process encouraged the groups to over-reach or over-sell their offerings, i.e. by providing a sales pitch, rather than a realistic assessment of their own needs, capabilities and constraints. This discussion allowed the group to further consider the barriers or constraints that have either prevented greater integration in the past, or that may impact future activities. The barriers and constraints were largely consistent with those identified in the case study interviews and summarised in section 5.3, including issues such as scale and lack of coordination and leadership, through to the differences in language used by each sector.

## 6.2.2 Common value propositions

Having identified and discussed the respective needs of industry, NRM regional bodies and government, it was then possible to identify key themes and areas of alignment where common value exists. Two overarching themes emerged from the workshop where there is common value in collaborating to meet their shared objectives:

- 1) Telling the story of sustainable practices across Australian agricultural industries, and
- 2) Supporting practice change amongst Australian farmers and land managers.

These themes and specific areas of alignment are further discussed below.

### Telling the story of sustainable practices across Australian agricultural industries

The need to secure and retain market access and a social licence to operate came out particularly strongly from the industry group. This finding is consistent with the underlying drivers for the implementation of a range of new industry-led sustainability initiatives, as identified in section 4.1.

While the development of industry-led sustainability initiatives is largely a market-based response to changing consumer and stakeholder perceptions, and therefore best driven by industry, both the government and NRM regional bodies identified areas where they could support industry to meet their needs in relation to social licence and market access, and in turn assist in meeting their own objectives.

Specifically, identified areas of overlap where greater integration would assist all groups included:

- Improving alignment of strategic goals from local priorities through to international commitments (and vice-versa)
- Achieving greater consistency of sustainability metrics and indicators that are used across agricultural industries, and
- Improving the compatibility of data sets that can be collected on a regional or industry-wide basis.

As identified in the stocktake undertaken as part of this project (refer section 4), despite there being benefits of industry-led sustainability initiatives, including industry ownership of goals and targets, and market-based rather than regulatory drivers for adoption of BMPs, there are also risks associated with the sector specific approach to their development. One of the major issues is that each sector has identified different indicators and measures of sustainability and is using different methods of collecting data to enable them to report their achievements.

This issue came out in the workshop, with all groups reporting difficulties arising from a lack of consistency in sustainability metrics that are in use and the data sets that underpin them, although all groups list setting indicators and reporting on them amongst their jobs, and products and services, and as such offer skills in this area.

The workshop participants discussed that while at the farm scale there are various BMPs the adoption of which can be measured, this information needs to be able to be aggregated to meet catchment targets or priorities as well as to demonstrate sustainability at an industry level. It was therefore considered that it might be useful to map out the respective needs and responsibilities for data collection and monitoring at each of these levels to aid alignment and reduce areas of duplication. For example, a farmer might need to monitor compliance with a BMP, but scaling this up becomes the role of industry or NRM regional bodies, and the role of government if the information is to be used to report on condition and trends in a set of national environmental accounts or state of the environment type report.

It was also considered that there needs to be some consistency in both indicators and data collection across sectors and indeed regions, and that again, mapping out all the different reasons that data is collected and at what scales might assist in identifying new tools and techniques to reduce the associated transaction costs. It was considered that this is an exercise that industry and NRM regional bodies could undertake together for mutual benefit. While it was recognised that standardisation might not always be achievable, it was felt that there is a need to strive for commonality where possible to avoid land managers having to monitor achievement against multiple targets and to minimise the need to report across different agricultural industries or commodities.

The need for the different groups to receive credit for activities or outcomes achieved, i.e. attribution, was also further discussed as a barrier to effective collaboration. It was suggested that an upfront process to identify common goals might assist in developing a more mature attitude toward attribution for achievement of a particular outcome.

### **Supporting practice change amongst Australian farmers and land managers**

All groups identified that they are ultimately trying to support and influence on-ground practice change to ensure the sustainability of Australian agriculture, be it through policy development, program investment, research and development, and/or extension activities. Given this, there are a number of opportunities where the alignment of activities would assist in meeting mutual objectives.

Specifically, identified areas of overlap where greater integration would assist all groups included:

- Sharing networks and expertise across the agricultural and NRM sectors
- Providing extension services to encourage increased adoption of best management practices
- Sharing and building the evidence base, including better integration of research needs that help define BMPs and demonstrate the link to the achievement of biophysical outcomes
- Leveraging program and project level investment, and
- Identifying new market opportunities and emerging industries, e.g. environmental stewardship, carbon farming, etc.

While it was identified that each group has their own expansive networks, in many cases these networks may be different, and therefore it was considered that realising opportunities to leverage each other's networks would lead to greater reach overall. The NRM regional bodies highlighted that they have regionally based, on-ground advisory staff who operate across industry sectors and commodity groups right across Australia, but they noted that given their reliance on program funding from State and Federal Governments, they have difficulties with continuity of funding beyond election cycles. Further, the NRM regional bodies identified that they do not always have the opportunity to influence or access industry research and development. The core role of the RDCs on the other hand is research and development funding and knowledge, but while they are able to support extension and adoption, they noted that they find both cross sector and cross commodity collaboration, and communicating the value of local level extension difficult.

A reduction in funding available to each sector, including the removal of state-based resources, was identified as having affected the delivery of extension services for agricultural production and NRM over time. It was suggested that there needs to be a coordination of knowledge and networks held by the different groups to show where gaps are in current extension provision and capacity. It was recognised that industry, NRM bodies and government all have a role in investing in national extension capacity. The issue of funding was seen to be more pronounced for the NRM regional bodies, with industry representatives indicating that they see these bodies as short-term project deliverers, which limits their ability to leave a legacy and become a 'trusted adviser'.

The group questioned why, given the great pool of knowledge that exists amongst the groups, they aren't coming together more often. A number of possible reasons were considered, including lack of understanding, lack of trust, and a perception that the role of NRM regional bodies is primarily in delivering environmental outcomes as opposed to agricultural outcomes. It was also identified that both sectors find it difficult to liaise and engage with each other given there is no central platform and the fact that there are 56 regional bodies and 15 RDCs. This has been less of an issue for geographically specific commodities, such as rice and sugar, but represents a major obstacle for geographically diverse commodities such as beef and sheep meats, and grains.

Finally, the group discussed the need for industry, NRM regional bodies and government to be on the front foot with regard to emerging industries and new market opportunities, e.g. Emissions Reduction Fund methodologies for carbon credits. It was noted that agribusiness, specifically the banking sector (e.g. NAB) is also starting to look at indicators for asset condition and funding sustainability initiatives on farm, which has the potential to be a greater driver for change than government funding.

### **6.2.3 Enabling mechanisms**

After having identified those areas where there is common value in the integration of activities between NRM regional bodies and industry sustainability initiatives, the workshop participants discussed what mechanisms might enable greater collaboration and integration of activities to progress those areas where common value was identified. The discussion and suggestions are listed below:

- A mechanism is needed between RDCs, NRM regional bodies and government at a strategic level to determine and resolve the key pressure points, such as data consistency and supporting practice

change. It is acknowledged that while it will not be possible to fix the whole system, efforts should be targeted at key pressure points.

- More informal mechanisms need to be established at the practitioner/operational level to facilitate knowledge sharing, this could be as simple as WhatsApp groups and Dropbox, or a more sophisticated partnership hub or community of practice.
- There may be benefit from a pilot program that looks to monetise biophysical assets and drive change through market-based incentives. If market incentives are not found, it was considered that success would continue to rely on government support.
- There may also be the potential for a pilot program to build on the current momentum of the Australian Beef Sustainability Framework in engaging with NRM regional bodies. The beef industry is in the process of considering how NRM regional bodies can engage in extension, data, reporting and setting targets at the regional level that can be scaled up to an industry level.
- There is the need to be realistic about the scale, complexity and time required, which could be ten years, and to map a pathway to resolution that is agreed by all players. It was suggested that the pathway might include discussion forums, further research, pilot projects, all the way through to legislation. This pathway would be similar to the trajectory that ClimateWorks has done to identify mechanisms and policy responses that would be required if Australia is to meet its 2030 emissions target.
- The importance of coordination, funding and support was highlighted, otherwise it is considered that participants/sectors will continue to revert to their own areas of core business despite recognising that there may be areas of common value from greater integration and collaboration.
- It might be useful to adopt the principle used in the Rural R&D for Profit Program to encourage collaboration between the RDCs and NRM regional bodies. It was considered that the Rural R&D for Profit Program drove greater collaboration amongst RDCs and provided real project outcomes as a result. It was noted that there are also likely learnings from the current round of NLP2 funding that is rolling out, with the intention that Regional Agriculture Landcare Facilitators positions will assist promote collaboration.
- The potential to link NRM and agricultural sector strategies and vision should be considered, recognising that it is impossible to understand and measure performance without a clearly defined and agreed strategy.
- Finally, it was noted that there is currently work underway to look at the future of the rural research, development and innovation system and that it might be possible to feed into such reviews. The Council of Rural RDCs is already in the process of constructing a framework out to 2040 and therefore it might be possible to create some alignment recognising that the relationship between the RDCs and NRM regional bodies is a key part of the rural innovation system.

### 6.3 Observations

Before commencing this project it was anticipated that the case studies of the different industry-led sustainability initiatives would provide various examples of ways in which the industries had collaborated with NRM regional bodies to enable comparison of the perceived benefits of the different approaches to collaboration. However, the project has showed that while industries do see the potential opportunity from the integration of the activities of NRM regional bodies with those of the sustainability initiatives, there are no clear models of what has worked and what has not.

A workshop with representatives from industry, NRM regional bodies and government provided the opportunity to further discuss the perspectives of each party in relation to the integration of their respective activities, and to better understand some of the barriers to effective collaboration. While there were a number of areas identified that would lead to benefit from increased integration of activities, the priority areas related to the need for greater alignment, where feasible, of approaches to determining sustainability indicators, data collection and reporting. Achievement of which would assist in telling the story of sustainable practices across Australian agricultural industries.

Each of industry, NRM regional bodies and government also all share a common interest in facilitating and supporting the adoption of sustainable practices by Australian farmers and landholders. There is therefore

greater scope to collaborate in research, development and extension activities, leveraging program and project level investment, and identifying new market opportunities that might assist drive farm level sustainability.

To achieve greater collaboration in those areas where common value has been identified, it is necessary to consider what mechanisms will enable this to happen. While a number of ideas and suggestions were put forward during the workshop process, it is likely that the success will be achieved by focusing on those mechanisms that provide a means to addressing the identified barriers and constraints to current activities.

One of the key constraints identified was that there appears to be a general lack of understanding and appreciation of the role of each party and their respective initiatives. Further, where value in greater integration has been identified, with 56 NRM regional bodies, 15 RDCs and multiple peak industry groups it is difficult to identify appropriate contacts and to navigate entry points.

To address these issues, it is clear that there is a need for increased coordination both within and across sectors, as well as for the consideration of appropriate forums for ongoing relationship development to facilitate collaboration beyond the *ad hoc* project level interactions that currently occur or that are reliant on existing individual relationships. While it is difficult to prescribe exactly what forum is appropriate for each circumstance, it is likely that a mix of approaches will be required. Examples include ensuring that representatives from NRM regional bodies are involved on consultative groups formed to guide the development and implementation of industry-led sustainability initiatives, and equally, ensuring that NRM regional bodies engage appropriate industry representatives in regional planning and program development. Both industry and NRM regional bodies have a role, and indeed a responsibility to their investors, in driving these interactions.

Another key constraint identified was that there is currently no clear strategy for sustainable agriculture across industries. Steps should therefore be taken to identify those components of industry-led sustainability initiatives that are common and where indicators can be standardised across sectors. Government has identified that they have a key role to play in providing national leadership through integrated policy and planning, and establishment of a set of national environmental accounts has been identified as a key tool to drive this alignment. At the national level it will also be important to consider alignment to international sustainability initiatives, including the United Nations Sustainable Development Goals (SDGs) and the Global Reporting Initiative (GRI) Sustainability Reporting Standards. While government may take the lead, both industry and NRM regional bodies have a role in mapping their current availability and needs in respect to sustainability metrics and data.

Finally, experience suggests that the provision of funding is likely to be required to incentivise collaboration across industry and NRM regional bodies. This is likely to be due to a combination of factors, including issues surrounding scale and attribution, and the fact that the full benefits of increased integration will not be realised, and therefore driven, by any one party. With government currently investing in a number of programs aimed at achieving sustainable agriculture and environmental objectives, they have a clear role in ensuring this investment is strategically targeted and promotes effective collaboration between industry and NRM regional bodies.

Achieving strategically targeted investment is likely to require a review of current program settings, which so far have not delivered effective integration of the activities of NRM regional bodies with those of the industry-led sustainability initiatives. Programs like the Rural R&D for Profit program, however, have been effective at facilitating greater cross-industry collaboration amongst RDCs and might provide learnings to be incorporated in future program settings. While it is likely too early to judge the effectiveness of current NLP2 funding, current program criteria do not show clear linkages to existing strategic priorities of either industry-led sustainability initiatives or NRM regional plans.

## 7. Project Insights and Implications

The aims of this project were threefold: 1) to examine and build the evidence base on the integration of the activities of the NRM regional bodies with industry-led sustainability initiatives; 2) to identify those areas of common value; and 3) to identify potential policy and program settings to facilitate and encourage greater collaboration and integration where there is common value. A review of current industry-led sustainability initiatives, examination of the involvement of NRM regional bodies in the development and implementation of a selection of these, and a workshop with representatives from industry, NRM regional bodies and government has provided a number of key insights toward these aims. These insights and the implications for project stakeholders are summarised below.

### **Integration of activities of the NRM regional bodies with industry-led sustainability initiatives**

Changes in consumer and stakeholder expectations over the past decade or so has seen the emergence of a number of industry-led sustainability initiatives across Australia's primary industries. These sustainability initiatives include frameworks and reporting measures, often linked to BMP programs and guidelines, aimed at demonstrating the industry's sustainability credentials.

Examination of eight of these initiatives found that the involvement of NRM regional bodies in the development and implementation of the initiatives has been limited. This does not mean that there have not been other areas of collaboration or engagement amongst industry and NRM regional bodies, rather there has not been consistent or formal collaboration relating to industry-led sustainability initiatives. Based on the case study findings, where collaboration has occurred, it has generally been on an *ad hoc* or project-by-project basis, often relying on existing relationships between key staff in the different organisations and/or driven by opportunistic funding available at the time.

A number of barriers were identified as likely to have inhibited the integration of activities and effective collaboration. These included:

- Lack of a clear strategy for NRM and sustainable agriculture across industries at the national level
- Lack of understanding and appreciation of the role and of each party and their respective initiatives
- No clear entry points for engagement, i.e. it is hard to identify appropriate contact points across 56 NRM regional bodies, 15 RDCs and multiple peak industry groups
- Difficulties arising from the need to ensure appropriate attribution of the contribution of each party, and
- Reduced funding to resource coordination of efforts and drive system level integration and collaboration.

There are clear benefits stemming from industry leading the development and implementation of sustainability initiatives, including ownership of goals and targets, and market-based rather than regulatory drivers for the adoption of BMPs. Despite these benefits, however, there are implications for industry, NRM regional bodies and government that need to be considered.

The sector specific approach to the development of the initiatives has meant that there is not a consistent or coordinated approach to their development or implementation, and therefore the integration of the activities of NRM regional bodies. The most obvious implication from this lack of coordination is that there is a duplication of effort in data collection and reporting amongst industry and NRM regional bodies. The implication for government is that it makes it difficult to target its considerable program investments, limiting the potential to leverage these investments to maximise both sustainable agriculture and environmental outcomes.

## Areas of common value

Despite there being limited involvement to date of NRM regional bodies in the development and implementation of industry-led sustainability initiatives, consultation with industry, NRM regional bodies and government undertaken as part of this project found that all parties see opportunity for greater integration of their activities. There is also a need to ensure that the considerable investment made by Australian farmers and taxpayers in sustainable agriculture and environmental outcomes is strategically targeted and leveraged for maximum impact, a point that has been taken up by the peak farm representative body, the NFF.

Two overarching themes emerged from this project where there is common value in collaborating to meet the shared objectives of both industry and the NRM regional bodies, as well as those of government. These are:

- Telling the story of sustainable practices across Australian agricultural industries, and
- Supporting practice change amongst Australian farmers and land managers.

While there were a number of activities identified as underpinning these common objectives, the areas of focus were:

- *Improving the alignment of strategic goals and priorities* – given the issues of scale across agricultural industries and geographic regions, this needs to be progressed from the local level through to international commitments and vice versa.
- *Achieving greater consistency of sustainability metrics and indicators* – all project participants noted difficulties in identifying and reporting on appropriate sustainability measures and as such, progress in aligning measures where feasible is considered a high priority.
- *Improving the compatibility of data sets* – inconsistent data sets is identified as a key area of potential duplication and as such, a process to map data needs and availability across sectors is also considered a high priority.
- *Supporting practice change* – it was identified that there is greater scope to collaborate in research, development and extension activities, leveraging program and project level investment, and identifying new market opportunities that might assist drive farm level sustainability.

As the interests of industry and NRM regional bodies converge around a shared vision for sustainable, profitable and productive farms, pursuit of increased collaboration in the key activities outlined above will assist each meet their respective objectives. Importantly, greater alignment in the approaches to determining sustainability indicators, data collection and reporting not only has the potential to reduce duplication of efforts, leading to reduced implementation costs, it will assist the collective ability of the Australian agricultural industry to tell a consistent and coherent story in relation its sustainability credentials. Government has a key role to play in supporting and facilitating increased collaboration between NRM regional bodies and industry where the full benefits of such collaboration do not accrue to any one party, and where there is the opportunity to promote the Australian agricultural industry on the international stage.

## Settings to facilitate and encourage greater collaboration

Given the barriers that have existed to effective integration of the activities of NRM regional bodies with those of industry-led sustainability initiatives, thought needs to be given to mechanisms that will enable and drive increased coordination and collaboration. It has been identified that industry, NRM regional bodies and government all have a role to play in achieving this.

It is clear that there is a need for increased coordination both within and across sectors. There is also a need to establish forums for ongoing relationship development across industry and NRM regional bodies to facilitate collaboration beyond the *ad hoc* interactions that currently occur. It is likely that a mix of approaches will be required to achieve this, which may range from involvement in sector or regionally

specific consultative groups to a national forum to consider cross sector issues. Both industry and NRM regional bodies have a role, and indeed a responsibility to their investors, in driving these interactions.

There is also the need for a clear strategy for NRM and sustainable agriculture across industries at the national level. Government has a key role to play in providing this national leadership through integrated policy and planning. Government also has a role in providing national coordination and collation of relevant datasets, which may be aided by the establishment of a set of national environmental accounts. Greater alignment can also be achieved by taking steps to identify those components of industry-led sustainability initiatives that are common and where indicators can be standardised across sectors. While government may take the lead, both industry and NRM regional bodies have a role in mapping their current availability and needs in respect to sustainability metrics and data.

Finally, with government currently investing in a number of programs aimed at achieving sustainable agriculture and environmental objectives, they have a clear role in ensuring this investment is strategically targeted and promotes effective collaboration between industry and NRM regional bodies. A review of current program settings may be required to determine if additional funding can be directed to incentivise the integration of the activities of NRM regional bodies with those of the industry sustainability initiatives.

## 8. Recommendations

Consistent with the project aims, this report documents a body of evidence on the integration of the activities of the NRM regional bodies with industry-led sustainability initiatives gained from a desktop stocktake exercise, development of a series of case studies, and a workshop with representatives from industry, NRM regional bodies and government. While the project found that integration has so far been limited, it provides important insights on the current barriers to effective collaboration, and identifies where there is common value to all parties, including government, if improvements are made to the current system.

It is recommended that the findings of this project are shared with each of the 15 RDCs, 56 NRM regions and relevant Australian Government agencies as there are implications to each and actions that could be taken to improve integration and realise common value. Both industry and NRM regional bodies can work to improve the understanding and appreciation of each other's respective roles and offerings, as well as to improve the coordination across sectors and regions. Government is best placed to provide national leadership through integrated policy development and strategic investment in sustainable agriculture and environmental objectives.

The following specific actions are suggested:

### Industry

1. Engage NRM regional bodies early in the development and implementation of sustainability initiatives, including in steering committees and consultative groups as appropriate.
2. Consider the role of NRM regional bodies in extension and adoption activities, including exploring more effective ways to share R&D findings relating to improved practices.
3. Map where there is commonality across sectors in indicators and data requirements.
4. Coordinate and participate in forums for ongoing engagement with NRM regional bodies.

### NRM regional bodies

5. Involve industry in regional strategic planning and program development.
6. Invest in a catalogue or inventory of available data that could be made available to industry under appropriate partnership arrangements.
7. Coordinate and participate in forums for ongoing engagement with industry RDCs and other peak bodies leading the development of sector specific sustainability initiatives.

### Government

8. Provide coordination and leadership through the development of a national sustainable agriculture strategy that demonstrates clear linkages with international standards and goals.
9. Progress the development of a national set of environmental accounts to underpin this strategy aiding alignment of indicators and data requirements across sectors and regions.
10. Consider how current and future program settings can be used to improve the strategic alignment of the goals and priorities contained in industry-led sustainability frameworks and NRM regional plans.

## 9. Case Studies

### 9.1 Australian Beef Sustainability Framework

#### 9.1.1 Introduction

##### Description

The Australian Beef Sustainability Framework was officially launched in April 2017 as a tool to guide the industry's continuous improvement in sustainable practices. The Framework is based on a definition of sustainable beef production that incorporates the production of beef in a socially, environmentally and economically responsible way through the care of natural resources, people and the community, the health and welfare of animals, and the drive for continuous improvement.

The Framework was developed through broad consultation with industry participants and other stakeholders to define sustainable beef production in the Australian context, identify priority areas and indicators to measure over time, and where data is available, report current performance.

##### Drivers

The Framework supports priorities in the Meat Industry Strategic Plan 2020 for improving transparency, aligning practices with community expectations and building trust in the red meat sector. The Framework will be used to help protect and grow access to investment and finance, and to promote the industry to the community and customers.

##### Funding

Funding for the development of the Framework was provided by Meat & Livestock Australia through its grass-fed, grain fed and processor levies.

##### Link with international standards

The Framework has been mapped to the United Nation's 2030 Agenda for Sustainable Development and the 17 Sustainable Development Goals. Alignment with these goals is intended to allow the Australian beef industry to demonstrate how it is contributing to sustainability in a global context as well as assisting the industry to meet ever-changing expectations around sustainability. The Australian beef industry recognises the impact that global recognition of the importance of sustainable production practices is having on the regulatory landscape and international market access.

#### 9.1.2 Program content

The intent of the Australian Beef Sustainability Framework is to define sustainable beef production and track performance over a series of indicators on an annual basis. The Framework covers beef production from the paddock to the point of delivery to either processor or end market.

The Framework has been developed to address 23 priority areas, as identified by industry stakeholders, at the national level. Groups participating in the consultation process included Australian and overseas retailers, banks, investors, environment and welfare NGOs, researchers, government, policy organisations and industry groups. The Framework does not address specific geographical regions, although recognises that there are a number of local action plans and regionally specific programs and projects that contribute to more sustainable production practices.

The Framework establishes four themes of sustainability for the Australian beef industry, being 1) animal welfare, 2) environmental stewardship, 3) economic resilience, and 4) people and the community. The stakeholder identified priority areas fall under each of these four themes along with an indicator, or series

of indicators, to report and track progress. There is currently data available to support reporting against 28 of 48 identified indicators.

A five-step implementation plan was developed to support the release of the Framework in April 2017. These steps included appointing a new Sustainability Steering Group, establishing a multi-stakeholder Consultative Committee, forming expert panels to progress indicators and measures for reporting, undertaking a stocktake of activity across the value chain, and undertaking annual progress reporting.

Further work through the Sustainability Steering Group and Consultative Committee since the Framework was released has identified that while all 23 priority areas remain important and activity across each will continue, there will be a particular industry focus on six key areas. These six key priority areas are 1) animal husbandry techniques, 2) profitability across the value chain, 3) balance of tree and grass cover, 4) antimicrobial stewardship, 5) managing climate change risk, and 6) health and safety of people in the industry.

There was no direct involvement of the NRM regional bodies in the initial industry stakeholder consultation that informed the development of the Australian Beef Sustainability Initiative. There is, however, a standing invitation for a representative from the NRM regional bodies to attend the Consultative Committee, which meets twice yearly.

### **9.1.3 Baseline data**

On completion of the first annual update, there was data available to support reporting against 28 of the 48 identified indicators. While this is an improvement on the number of indicators that had data available when the Framework was first released, there are still a number of indicators where there is not yet agreement on the best approach to measurement.

The industry's preferred approach is to use available data where appropriate, minimising the need for additional and costly data collection. The data that has been used is from a variety of internal and external sources, including ABARES, published research, producer surveys, audited industry integrity systems and government databases. It is intended that the indicators and reporting structure will evolve over time, as data sources improve with the emergence of new technologies and the expansion of voluntary on-farm management systems.

For those priority areas where there is not yet data available to report against the identified indicators, multi-disciplinary experts are being engaged to help refine indicators and identify appropriate data sources. The first of these expert groups has been established for the key priority area of 'balance of tree and grass cover'. While NRM regions have not been formally engaged in this process, the expert working group has suggested that there should be regionally specific targets for 'balance of tree and grass cover' that scale up to a national indicator. This is seen as a future opportunity for the involvement of the NRM regional bodies.

### **9.1.4 Targets**

The Framework identifies the priority areas and indicators to measure over time to demonstrate industry performance. The Framework does not set explicit targets for the indicators but rather aims for continual improvement across the suite of indicators.

### **9.1.5 Monitoring**

To assist with identifying future data and monitoring requirements, one of the five steps to implementing the Framework involved a stocktake of activities already occurring across the industry. This involved a review of industry and government investment in industry service companies and a high-level stocktake across third party organisations. The review of third party organisations included NRM regional bodies, as well as service providers to industry and government agencies. The aim of the stocktake was to understand what activities are already occurring in terms of research, adoption and data systems for the six key priority

areas and to identify any gaps and duplication to improve future coordination between industry and these external organisations.

### **9.1.6 Reporting**

The first Australian Beef Sustainability Annual Update was released in 2018. The update provided an outline of progress against the Framework's five-step implementation plan, an outline of activities underway or planned for the six key priority areas selected by stakeholders, a situation statement and, where data is available, performance across the full 23 priority areas, and case studies of sustainable practice across the value chain. It is intended to report annually on the Framework's progress with a more comprehensive report prepared every five years.

### **9.1.7 Extension**

While there is not a direct link between the Australian Beef Sustainability Framework and industry extension activities, the Framework provides a mechanism to improve communication with industry around sustainability and to inform future investment in research, development and extension activities.

There is also opportunity for new and existing programs, such as the Queensland Grazing Best Management Practice, to align with the priority areas that are reported in the Framework.

Key areas that are considered to present short to medium term opportunities for the involvement of NRM regional bodies in extension activities include the 'balance of tree and grass cover' and 'managing climate change risk' priorities. An expert panel will be formed over the next 12-months to assist the industry's development of a strategy to deliver carbon neutral beef by 2030.

### **9.1.8 Additional involvement of NRM regional bodies**

While it is recognised that there is considerable opportunity for industry to work with NRM regional bodies in progressing the Australian Beef Sustainability Framework, particularly in the areas of data collection, reporting and extension activities, the number of regional bodies that cover the large geographical area of beef production across Australia will present challenges to effective collaboration.

## 9.2 Australian Egg Sustainability Framework

### 9.2.1 Introduction

#### Description

The egg industry announced the development of a new Sustainability Framework in April 2018. The timeline for activity contained within the Framework is scheduled to take 9 months and the process will include defining what is socially, environmentally and economically responsible in the context of egg farming and providing a basis for continuous improvement. A key part of the process will be identifying issues of interest to the community. Australian Eggs will release a Sustainability Framework report in early 2019 detailing how the egg industry is responding to the identified issues.

#### Drivers

The key driver is demonstrating the accountability of the industry. Additional drivers are improving the focus of RD&E, increasing the quality of engagement with the community, and communicating outcomes to stakeholders.

#### Funding

The development of the Framework is being funded by Australian Eggs (farmer levy and Australian Government).

#### Link with international standards

There is no formal link with international sustainability standards but the industry will research international best practice on animal welfare, food safety and environmental sustainability and apply the weight of scientific knowledge when determining what is included in the Framework Report.

### 9.2.2 Program content

Content will be developed by Australian Eggs with input from the Australian Eggs Industry Consultative Committee. CSIRO researchers are interviewing stakeholders all along the supply chain to identify themes and inform the development of the community survey. The CSIRO will then collect the views of an ABS representative sample of 5,000 Australians, as well as sharing a public invitation for anyone to participate in the survey. Issues addressed in the Australian Eggs Report in early 2019 will be those that: are important to the general public; reflect the impacts and contributions of the industry; can be progressed by egg farmers; and are of interest to a range of industry stakeholders. The final contents of the Framework will not be decided until CSIRO has finished their research, but in terms of environmental issues it is likely that it will include information on the egg industry's use of energy and water resources, waste management and responsible management of farm land. Information in the report will be national rather than regionally specific.

In 2008 LEAP consultants developed a set of Environmental Guidelines for the egg industry as part of the Australian Government's Pathways to Industry EMS Program. It is unclear whether the NRM regional bodies were involved in any way in the development of these guidelines. The guidelines have recently been updated and they cover the key environmental issues facing the egg industry. The industry therefore already has a good idea of the environmental issues it faces and hasn't needed to involve the NRM regional bodies in identifying those issues.

Once the CSIRO has provided the results of their research, there may be a role for the NRM regional bodies as the industry decides how best to respond. The industry is still undecided about whether the Framework will include BMPs or not. There is no intention of telling farmers what they have to do at an individual business level so the Framework will not be a prescriptive set of standards about how people need to run their businesses. Rather it will provide detailed information about what the key issues are

according to communities around Australia and it will be up to each individual business to decide what they need to do to improve.

The whole Framework will be driven by the need to meet community expectations. In terms of sustainability for the egg industry, environmental impact is currently less of an issue than animal welfare, although the carbon footprint of the industry and the issues associated with the increase in free range production (such as surface and groundwater, vegetation and erosion management) will also need to be addressed.

There is no attempt to link in with landscape scale NRM priorities because they are not considered relevant to the industry.

### **9.2.3 Baseline data**

Baseline data will be that presented by CSIRO in their initial 2018 report on the results of their research into community perceptions of the industry.

### **9.2.4 Targets**

It is unlikely that there will be any targets in the traditional sense, i.e. tracking of industry improvement in practices. Rather any targets are likely to be related to an increase in some type of index of community trust in the industry that is provided by CSIRO.

### **9.2.5 Monitoring**

At this stage the industry won't be monitoring practices at an individual business level, but rather tracking changes in public perception of the industry over time. The industry has made a commitment to repeat the CSIRO research annually for at least three years. However, if research conducted by the industry has resulted in recommended management practices and the industry thinks there would be benefit in monitoring the number of businesses that are changing their on-farm management practices as a result of that information, then this may occur.

### **9.2.6 Reporting**

Reporting will be to stakeholders and members: levy paying egg farmers; each of the state industry representative bodies e.g. the Egg Committee within NSW Farmers, VFF etc. also large stakeholders like Specialised Breeders Australia. However, the main stakeholder is the general public and it is hoped they will take a keen interest in the reports when they are released.

### **9.2.7 Extension**

There are structures in place to deliver extension within the egg industry. There is an Industry Consultative Committee made up of egg farmers from around the country and Australian Eggs works closely with the representative bodies such as the egg committees from NSW Farmers and VFF etc, which will be the links to farmers in each of the States. Every available channel will be used to disseminate the findings of each report, including running workshops and other extension activities to share the information with the industry.

There is currently no clear role for NRM regional bodies in providing extension, but this may change depending on what the CSIRO presents in their findings. At the moment, Australian Eggs understands the industry has a relatively low environmental impact when compared to other livestock industries. However, new issues are emerging with the growth in free range production and there is a chance that in the future there would be a role for the NRM regional bodies in helping to find solutions for some of those issues.

In addition, the focus of Australian Eggs is on the 300 commercial large-scale producers but there is a large tail of smaller producers and the NRM regional bodies may have a role in providing extension to those networks.

### **9.2.8 Additional involvement of NRM regional bodies**

None to date.

## **9.3 Cotton Australia's myBMP**

### **9.3.1 Introduction**

#### **Description**

The Australian cotton industry's myBMP program is a voluntary farm and environmental management system that provides a self-assessment mechanism, practical tools and auditing processes to ensure that Australian cotton is produced according to best practice. The program was initially developed in 1997, however, following review and redevelopment, the current online system was launched in 2010.

#### **Drivers**

myBMP was initially developed in response to increasing public pressure on the cotton industry regarding spray drift issues and chemical usage handling. With significant advances made in these areas, the industry now operates within a broader sustainability framework. In 2014, the Australian cotton industry released its first sustainability report prepared according to the principles and framework of the Global Reporting Initiative for Sustainability Reporting.

#### **Funding**

myBMP is owned and managed by peak industry body Cotton Australia. The upgrades to the program were supported by Cotton Australia through funding from the Australian Government's National Landcare Programme (Phase 1) and the Cotton Research and Development Corporation.

#### **Link with international standards**

myBMP is aligned with internationally recognised quality assurance programs and marketing initiatives for sustainable cotton production. One of the stated benefits of grower participation in myBMP is access to premium global markets, including the Better Cotton Initiative. The Better Cotton Initiative is a global sustainability program focused at achieving farm level improvements, with some of the world's largest brands committing to significant targets for the use of Better Cotton in their products. Given the focus on farm level improvements, the Better Cotton Initiative aligns directly with myBMP certification standards allowing Australian cotton growers to access global premium markets. Growers must achieve myBMP certification as prerequisite to qualifying as a Better Cotton Initiative grower. Cotton Australia reports that some Australian cotton growers were able to negotiate a \$3 to \$8 per bale premium for their cotton in the 2014/15 season when sold as a Better Cotton Initiative product.

### **9.3.2 Program content**

The content of myBMP has evolved over time given the program first commenced in 1997. The online system launched in 2010 now comprises 10 modules for growers including: biosecurity; energy and input efficiency; fibre quality; human resources and work health and safety; integrated pest management; sustainable natural landscape; pesticide management; petrochemical storage and handling; soil health and water management. The best practice standards are supported by industry research and development, online resources and technical specialists.

myBMP was developed with industry wide consultation with growers, researchers and industry bodies. A consultant was engaged to review the previous program and develop the new online system. While the development of myBMP did not involve the NRM regional bodies in a formal sense, the relevant strategic NRM plans were considered as part of the program review process.

Once the best practice standards were established, meetings were held with NRM regional bodies throughout the growing regions to workshop how they might be involved in program implementation.

### **9.3.3 Baseline data**

There has been no direct involvement of NRM regional bodies in providing baseline data. The program tracks adoption of on-farm best management practice amongst industry participants based on the program's self-assessment and auditing processes.

### **9.3.4 Targets**

#### **Targets for BMP adoption**

Targets for myBMP are set for both self-assessment and certification. In its 2017/18 Annual Report, Cotton Australia reported that 78% of all cotton growers participate in myBMP and that a total of 210 cotton farms – out of an estimated 1200 – have achieved myBMP certification.

#### **Targets for NRM outcomes**

The myBMP program is about benchmarking and improving grower practices rather than measuring resource condition. The best practice standards are developed however, on the basis that they will lead to both farm management and environmental improvements. While the strategic priorities of NRM regional bodies were taken into account in developing the program, myBMP does not establish regional condition targets or define specific NRM outcomes.

### **9.3.5 Monitoring**

#### **Monitoring of BMP adoption**

The myBMP framework provides the opportunity for growers to access resources, undertake self-assessment and/or to achieve certification through the auditing process. To achieve certification, a grower must first undertake a self-assessment of their farm/s, completing level 1 and 2 checklists as appropriate and upload relevant files and documentation to the system to demonstrate their compliance. At this stage, the grower is able to request that an auditor is assigned to conduct an on-farm audit. Certification is achieved on the basis of the auditor's report, including the grower's response to any areas of non-conformance. An auditing scrutineer is also engaged to review the audit and ensure compliance.

myBMP technical leads are responsible for the annual review of module content to ensure that it meets current best management standards. Technical leads may contact NRM regional body staff as part of this process, however, this will usually depend on individual networks and relationships.

#### **Monitoring of NRM outcomes**

Not applicable.

### **9.3.6 Reporting**

Cotton Australia provides an update of industry adoption of myBMP in its Annual Report. Adoption of myBMP was also reported in the industry's first sustainability report in 2014. Cotton Australia uses the myBMP program as a key platform in its global marketing campaign.

### **9.3.7 Extension**

Industry adoption of myBMP is supported by Cotton Australia's myBMP manager and its network of regional managers, as well as technical leads and the industry's regional extension officers who are funded through CottonInfo. CottonInfo is the industry's joint extension program funded by Cotton Australia, the Cotton Research and Development Corporation, and Cotton Seed Distributors.

There have been a number of examples of direct involvement of the NRM regional bodies in extension services since the program's inception in 1997, typically through co-funding arrangements. For example, the then Namoi CMA and Cotton CRC co-funded a position to provide advisory services to cotton growers in the Namoi catchment and advice on environmental best practice across the industry more broadly linked to what was then the land and water module. These types of arrangements have largely been replaced by the CottonInfo regional extension model.

### **9.3.8 Additional involvement of NRM regional bodies**

The involvement of the NRM regional bodies covering the Australian cotton growing regions has tended to be on an *ad hoc* basis since the launch of the myBMP online system in 2010. This involvement has often been the result of existing relationships between industry and personnel within the NRM regional bodies. Time, knowledge and financial constraints are often identified by growers as barriers to practice change. NRM regional bodies are identified as having personnel who are able to provide advice in relation to NRM practices as well as offering financial incentive programs. There are examples over time of NRM regional body incentives and programs linked to myBMP participation.

## 9.4 Dairy Industry Sustainability Framework

### 9.4.1 Introduction

#### Description

The Dairy Industry Sustainability Framework was developed in 2012. It is linked to the industry's Dairying for Tomorrow program, which uses an extension approach to encourage the adoption of better practices, and to DairySAT (a self-assessment tool for Australian dairy farmers). The Framework seeks to consider all issues along the value chain that have the potential to affect the sustainability of the dairy industry.

#### Drivers

The Framework was developed in response to increasing expectations from the community and customers that the industry is doing the right thing by people, animals and the planet. It also provides a cohesive blueprint to guide continuous improvement in priority areas. The development of the Framework was entirely market-driven by the multi-nationals and ultimately by the consumers. The multi-nationals wanted a secure supply and the rationale for the Framework was that if the industry could set its own targets it wouldn't have to respond to Nestle or Unilever or Mars.

#### Funding

Funding for development of the Framework was through the Australian Dairy Products Federation, Australian Dairy Farmers, Australian Dairy Industry Council and Dairy Australia.

#### Link with international standards

The Framework aligns with the UN Sustainable Development Goals. The dairy industry is moving towards reporting in line with the Global Reporting Initiative Sustainability Reporting Standards. Australian Dairy Industry Council is the owner of the Australian Dairy Industry Sustainability Framework on behalf of the industry.

The international dairy industry has also developed the global Dairy Sustainability Framework (DSF). Dairy Australia is a full member of the DSF and the Australian Dairy Industry Sustainability Framework aligns with this global framework.

### 9.4.2 Program content

There was no involvement of the NRM regional bodies in identifying the key environmental issues facing the industry and there was no attempt to link in with landscape scale NRM priorities. The NRM regional bodies were also not involved in defining BMPs.

The key focus of the Framework is on setting targets for the percentage of farmers adopting particular practices, including: excluding stock from waterways; managing riparian zones; implementing nutrient management plans; having a biodiversity action plan; recycling water from dairy sheds and monitoring water consumption. Specific targets are also included for water use efficiency and greenhouse gas emissions intensity.

The Framework content was developed by reviewing the targets adopted by the dairy industry in other countries, assessing the sustainability issues relevant to the dairy industry in Australia and identifying stakeholder interests.

The BMPs, tools and guidelines that underpin the Framework are contained within the industry's Dairying for Tomorrow Program but there doesn't appear to be a cohesive implementation pathway under the Framework that sets out how the targets will actually be achieved. As a result, some of the milk companies are now starting their own sustainability programs and employing their own sustainability officers. Bega

does a sustainability assessment of their farms every year and Fonterra is moving to do the same. These assessments are based on the industry Sustainability Framework targets. Both companies have premium suppliers who get a price bonus for performing across the board in all sustainability areas.

### **9.4.3 Baseline data**

Baseline data was obtained from Dairying for Tomorrow, the Dairy Manufacturers Sustainability Consortium sustainability report, Australian Packaging Covenant (APC), Dairy Monitor, DairySAT, and the National Dairy Farmers survey.

Baseline data on NRM indicators for manufacturers was obtained from the Australian Dairy Manufacturing Environmental Sustainability Report 2010/11.

NRM regional bodies were not involved in providing any baseline data.

### **9.4.4 Targets**

#### **Targets for BMP adoption**

The Framework goals and targets for percentage adoption rates were reviewed in 2017 and the revised targets went to the ADIC, all the industry State farming organisations, and the processors for review and sign off. They are now about to be adopted. The NRM regional bodies were not involved in this review process at all. The key focus is about getting the targets right and meeting the UN Sustainable Development Goals. Despite the fact that only 30% of product is exported, that export demand is driving the targets.

#### **Targets for NRM outcomes**

The Framework includes targets for water use efficiency and greenhouse gas emissions intensity.

There is no NRM regional body representation on the Dairy Sustainability Consultative Forum, which is the body responsible for updating the Framework goals and targets. However, the NRM regional bodies have looked at those targets and referenced them in their strategic plans. This enables the NRM regional bodies to demonstrate how what they are doing is helping the industry to meet their targets.

The targets are almost entirely driven by market and social license requirements. However, if for example 100% of dairy farmers in a region are doing nutrient management plans then this will also help the NRM region to meet its water quality targets.

### **9.4.5 Monitoring**

#### **Monitoring of BMP adoption**

Information about progress towards targets (for example the percentage of farmers with nutrient management plans) is gathered from three-yearly Sustainability Framework Natural Resource Management Surveys. The last survey was undertaken in 2015, and the next was originally due in 2018 but has now been delayed until 2020. All information on practices is self-reported by farmers every 3-6 years. NRM regional bodies are not involved in this monitoring.

#### **Monitoring of NRM outcomes**

Progress data relating to manufacturers' consumptive water intensity, greenhouse gas emissions intensity and amount of waste to landfill is obtained directly from the dairy manufacturers.

At the farm level, the industry has done a lot of work on modelling greenhouse gas emissions intensity and farmers are now able to calculate the carbon emissions profile for their farm using the industry's carbon calculator. The calculator is lined up with the IDF carbon footprint methodology.

There is no involvement of NRM regional bodies in monitoring NRM outcomes. With respect to water quality outcomes unless there is continuous monitoring then the results would not be reliable. Research is also showing that it could be up to 30 years before practice change can be shown to have an impact on water quality.

#### **9.4.6 Reporting**

There is no involvement of NRM regional bodies in reporting of outcomes. The linkage between the Framework and the NRM regional bodies does not exist.

#### **9.4.7 Extension**

There is no role for the NRM regional bodies to provide extension in order to increase BMP adoption.

#### **9.4.8 Additional involvement of NRM regional bodies**

Dairy Australia Regional Development Programs are working with regional NRM bodies to fence off and revegetate waterways (see Sustainability Framework Report 2015 p58).

NRM regional bodies are perceived by the industry as a source of funding for the roll out of programs, but the potential mutual benefit of engaging with NRM regional bodies in other ways as part of the development or implementation of the Sustainability Framework is not well understood or appreciated at the Sustainability Framework leadership level.

## **9.5 EnviroVeg**

### **9.5.1 Introduction**

#### **Description**

EnviroVeg is an industry led environmental program for vegetable production businesses. It is a voluntary program that includes a self-assessment tool to help growers compare current farming practices with industry recommendations and standards to improve environmental performance. With new funding commencing in March 2017, the program has recently been reviewed and has undergone significant redevelopment. The new program features a pathway to third-party certification under the Freshcare Environmental Code and uses the online platform Hort360 for benchmarking.

#### **Drivers**

The EnviroVeg program initially commenced in 2001 with trials conducted in Victoria. The program was subsequently expanded into a national program under the auspices of AUSVEG, the peak body for the Australian vegetable industry. Development of the program was originally driven by community concerns in relation to the environmental performance of vegetable growers. The program now aims to improve the longevity of the vegetable growing regions and develop industry recognition for environmentally responsible and sustainable production methods.

#### **Funding**

The EnviroVeg program is currently funded for a five-year period (2017-2022) from Hort Innovation's vegetable R&D program, i.e. through grower levies and matching funding from the Australian Government. Part of this five-year funding is to pursue avenues for the program to become self-sustaining in the longer term. Freshcare and GrowCom came on board as project partners in 2017, bringing with them significant intellectual property.

#### **Link with international standards**

Through their participation in the EnviroVeg program, growers have the option of third-party auditing and certification with Freshcare Environmental. Freshcare is the fresh produce industry's on-farm assurance program designed to meet the needs of Australian growers in fulfilling both domestic and international market requirements. Freshcare assurance was initially focused on food safety and quality, with the program including benchmarking to the Global Food Safety Initiative (GFSI). The Freshcare program was expanded in 2016 to include Freshcare Environmental, providing independent assurance of on-farm environmental practices and sustainable production. Once certification is achieved, participants can use the Freshcare Environmental certification mark in line with its conditions for marketing and promotional purposes.

### **9.5.2 Program content**

The content of the EnviroVeg program has evolved since its inception in 2001. The primary objective of the program is to provide growers with guidelines and information on how to manage their business in an environmentally sustainable way. The program is underpinned by an Environmental Management Practice manual that includes up to date information on achieving sustainable vegetable production.

The resource has recently been updated by technical experts and includes eleven management chapters: 1) Business, 2) Land and Soil, 3) Crop nutrition, fertilisers and soil additives, 4) Pests, weeds and diseases, 5) Water, 6) Biosecurity, 7) Chemicals, 8) Energy and greenhouse gasses, 9) Waste, 10) Air, and 11) Biodiversity.

Each management chapter contains three main sections:

1. Management guidelines
  - Context, business benefits, scope and management objectives that define the rationale for the section
  - Achieving environmental assurance certification
  - Key hazards and risks, recommended practices, expected outcomes (short and long term)
  - Simple ways to stay informed and the knowledge and innovation pipeline (emerging/recent research).
2. Putting it into practice
  - Collect baseline information and data
  - Assess your risks
  - Prepare an action plan
  - Monitor performance indicators
  - Keep records
  - Review, evaluate and communicate.
3. References and resources
  - Continually updated with links and resources to achieve uptake and drive continuous improvement.

Previously iterations of the EnviroVeg program received funding through the EMS Pathways to Sustainable Agriculture Program to develop partnerships between NRM regional bodies and the vegetable industry to ensure compatibility with NRM objectives and priorities. The updated program will develop detailed regional guides, which outline NRM priorities for each region as well as relevant environmental legislation governing on-farm activities.

### **9.5.3 Baseline data**

The revised program intends to track the adoption of on-farm best management practice amongst industry participants based on the program's self-assessment and auditing processes. With Growcom coming on board as project partners, there is now direct alignment with the broader industry's Hort-360 platform, which will allow individual benchmarking and tracking of industry wide progress toward improved management practices. There has been no direct involvement of NRM regional bodies in providing baseline data, but this would be welcomed.

### **9.5.4 Targets**

#### **Targets for BMP adoption**

While a key objective of the program is to grow participation in the EnviroVeg program and ultimately the adoption of improved practices, there are currently no specific targets for either. The program will be considered a success if vegetable producers find it beneficial.

#### **Targets for NRM outcomes**

The EnviroVeg program intends to benchmark and support improved grower practices to achieve on-farm environmental outcomes. The program does not establish regional biophysical condition targets or define specific NRM outcomes, but would like to incorporate these in the future.

## **9.5.5 Monitoring**

### **Monitoring of BMP adoption**

Participation in EnviroVeg provides the opportunity for growers to access training and resources, undertake self-assessment and/or a pathway to achieving certification through the third-party auditing process. The partnership with Growcom provides alignment with the Hort-360 platform, which will collate and host the data collected through annual self-assessment requirements to help measure the industry's overall progress toward improved management practices and inform industry R&D levy priorities.

It is intended that the program will be subject to regular technical review and importantly, that relevant R&D levy research outcomes are integrated into the manual.

### **Monitoring of NRM outcomes**

There is currently no formal role for the NRM regional bodies in monitoring the outcomes achieved through the EnviroVeg program. It is, however, recognised that there may be a role for NRM regional bodies in reviewing program content and progress in the future to identify target areas where greater grower uptake may be required to address regionally specific environmental issues. This would be encouraged by the program.

## **9.5.6 Reporting**

As an industry funded R&D program, EnviroVeg has regular reporting requirements to Hort Innovation. For growers participating in the program, self-assessment data is housed within Growcom's Hort-360 platform allowing them to benchmark their individual changes and performance against other growers in the industry.

## **9.5.7 Extension**

The updated EnviroVeg program involves piloting progression through the program with 30 vegetable growers, including training and certification. The training is intended to build on the knowledge gained through the self-assessment process through facilitation with a best practice specialist from Growcom. The training program utilises modules of the broader industry Hort-360 program and feedback from a completed self-assessment and provides a pathway for growers to meet the training requirements for Freshcare Environmental certification.

While there is currently no involvement of NRM regional bodies in program extension, it is recognised that there could be role for the regional bodies in providing both extension services and incentive programs in the future and EnviroVeg would welcome collaboration with these bodies.

## **9.5.8 Additional involvement of NRM regional bodies**

While there have been direct links with the EnviroVeg program and NRM regional bodies in the past, the program has been under review and redevelopment over the past 12 month. As such, there are currently no formal arrangements with NRM regional bodies. Areas have been identified, however, where NRM regional bodies could add value in the future including provision of advisory services, linked incentive programs and review of program content to provide greater regional specificity where appropriate. EnviroVeg wishes to involve NRM groups more as it progresses.

## **9.6 Ricegrowers' Association's Environmental Champions Program**

### **9.6.1 Introduction**

#### **Description**

The Rice Environmental Champions Program (ECP), which commenced in 2002, is a farmer-driven accreditation program that provides a supportive environment for farmers to share knowledge about adaptive, best practice natural resource management and gain industry recognition of their achievements.

#### **Drivers**

The development of the ECP was driven by the need for the rice industry to defend its image by demonstrating environmental performance. The program was designed to support growers in managing their businesses and having a sustainable farm and region for the future. The vision was for the ECP to be part of a coordinated approach to agronomic and NRM extension for the industry.

#### **Funding**

Funding for development of the ECP was through the Natural Heritage Trust Pathways to Industry EMS Program with additional industry funds used to employ coordinators.

#### **Link with international standards**

There is no formal link with international standards. The international Sustainable Rice Platform (SRP), co-convened by the UN Environment and the International Rice Research Institute was developed before the UN Sustainable Development Goals. The SRP is the key basis on which an Australian Sustainable Rice Platform is currently being developed. The intention is that once this platform is rolled out across the whole industry it is likely to bear the ECP name.

### **9.6.2 Program content**

The ECP was developed by the Ricegrowers Association in association with growers, industry, local NRM groups (Murray CMA and Murrumbidgee CMA), irrigation companies and the Australian Government (through funding from the Pathways to Industry EMS program). It includes five achievement levels covering performance across industry's nine key management areas of water (water use efficiency and water quality), soil health, air and air quality, chemical management, farm planning, biodiversity, product quality, environmental risk and environmental services. Achievement levels are not regionally specific.

The two CMAs were not involved in identifying the key environmental issues that were to be included in the ECP but they did provide technical input to content, particularly in relation to biodiversity, habitat and vegetation management. Programs and initiatives from the CMAs were also incorporated into the content of the ECP with the program documentation directing farmers to seek advice (and potentially access incentive funding) from the CMAs in relation to specific NRM issues.

### **9.6.3 Baseline data**

There was no Involvement of NRM regional bodies in providing baseline data. The RGA established baseline data on what farmers were doing in relation to the key aspects of the ECP when the program commenced.

## 9.6.4 Targets

### Targets for BMP adoption

The ECP comprises five levels of achievement: Level 1 basic industry standards, Level 2 Planning beyond industry standards, Level 3 Putting plans into action, Level 4 Trade, innovation and eco-efficiencies, Level 5 Regional efforts towards catchment sustainability. The key focus of the program was on getting people through Levels 1 and 2. Some did get to Level 3 but were not acknowledged for it. No targets were set for the number of growers reaching each achievement level, rather the aim was to get as many people involved in the program as possible.

### Targets for NRM outcomes

The ECP does not include targets for NRM outcomes.

## 9.6.5 Monitoring

### Monitoring of BMP adoption

The ECP has a formal process to recognise achievement - when a participant meets all the benchmarks for a particular level they can apply to be recognised and receive a gate sign with the appropriate number of stars for the level achieved. This enables individual farm business achievements to be recognised, as well as evidence to be collected regarding industry wide outcomes.

All data relating to practices (including chemical and spray records) was gathered by the landholder and project officers and compiled into the required format. This was then signed off by the irrigation companies and then Riverina TAFE undertook an independent audit to verify compliance with a particular achievement level.

This information would have been shared with the CMAs but they did not have a direct role in monitoring of achievement levels.

### Monitoring of NRM outcomes

Not applicable.

## 9.6.6 Reporting

When the ECP commenced, annual reports were compiled presenting data on the number of growers and the number of hectares of rice properties achieving Levels 1 and 2. The CMAs were not involved in the reporting process. The last of these ECP reports was produced in 2012 in conjunction with the review of the program.

## 9.6.7 Extension

Initially the ECP had close working relationships with the irrigation companies because the Land and Water Management Plans covered most of the issues in the ECP except for chemical management and greenhouse emissions. When LWMPs were no longer required, the ECP worked particularly with the Murray CMA to distribute NRM information to growers but this was to broader groups rather than the original cluster group arrangement due to lack of industry funds.

In 2012 RGA with support of Murray CMA collated outcomes and lessons learnt from the ECP (<http://www.rga.org.au/f.ashx/ECP-Lessons-learnt-2013.pdf>). The review found that an industry-run program like the ECP is not likely to have the resources to provide all the expertise needed for delivery. There is therefore a need to create strong links to other sources of expertise, in particular to the NRM regional bodies.

When this report was produced, the CMAs were being replaced by Local Land Services (LLS) in NSW and there were no extension agronomists for the rice industry. The industry therefore had to find another way to fund an extension program for the industry with limited resources. The original regular group meeting process also became very difficult as younger growers adopted new technology and looked for different ways of obtaining the information they need. LLS staff therefore now deliver NRM materials as appropriate to ricegrowers in conjunction with activities the rice extension team were already running to minimise the costs and the number of meetings.

The ECP has had a Collaboration Agreement with Murray LLS and devolved funding from this collaboration has enabled the delivery of training programs, field days and short-term projects. MLLS funding ended 30 June 2018 and the continuation is dependent on NLP2 funding if approved.

#### **9.6.8 Additional involvement of NRM regional bodies**

The industry has received significant support from the CMAs and now from LLS, particularly in the Riverina for the Bittern in Rice program.

The industry also has partnerships with both Murray and Riverina LLS to develop guidance in relation to stubble burning. A joint funding application has also been submitted with both LLSs under NLP2.

## 9.7 Smartcane BMP Program

### 9.7.1 Introduction

#### Description

The key sustainability initiative in the sugar industry is the Smartcane BMP program. This is an industry-led, voluntary program that allows growers to benchmark their current practices against industry standards, identify and improve practices and determine steps they need to take to incorporate BMP into their enterprise. The program commenced in 2013.

#### Drivers

The program's development was driven by water quality issues on the reef and the need to prove industry sustainability to the community and customers. Productivity, profitability and continuous improvement are a focus for growers. The QLD Government also undertook to wind back Reef Regulations if a sufficient number of growers in target catchments participated in a BMP program. This didn't eventuate, however growers accredited in Smartcane BMP are now deemed to meet Reef Regulations.

#### Funding

The program's development was funded by the QLD government. The principles, practices and underlying research supporting the practices in the program have been funded by industry.

#### Link with international standards

The original Smartcane BMP modules have been modified to align with the on-farm criteria used by Bonsucro, which provides international standards for sustainable sugar. Bonsucro is designed to establish global market access across a wide range of sugarcane production systems.

### 9.7.2 Program content

The Smartcane BMP program is an online, web-based modular system that includes BMPs for soil health and plant nutrition management; pest, disease and weed management; drainage and irrigation management; crop production and harvest management; and natural systems management. Most of the BMPs are consistent across the whole industry but some of the drainage BMPs are regionally specific. Where there are regional differences, it can be difficult to define practices and it is therefore important that they are principle-based rather than being prescriptive so they retain flexibility.

The four NRM regional bodies that cover the cane growing areas (NQ Dry Tropics, Terrain NRM, Burnett Mary Regional Group and Reef Catchments NRM) were not explicitly involved in determining the key environmental issues that should be included in the Smartcane BMP program. However, indirectly they had some influence in highlighting the necessity for improving water quality to the Great Barrier Reef. The Reef Rescue Program (water quality), the impending Reef Regulations (nutrients and chemical usage) and the existing ABCD Practice Frameworks all influenced the environmental issues that the Smartcane BMP program was designed to address.

It was an industry decision about what BMPs were included in the Smartcane BMP program. Four of the Smartcane BMP modules were developed by Sugar Research Australia (SRA) in consultation with the Department of Environment and Heritage Protection. These were the modules relating to: soil health and plant nutrition management; pest, disease and weed management; drainage and irrigation management; crop production and harvest management. The rest of the modules were developed by external consultants.

Once all seven of the draft modules had been developed, CANEGROWERS convened an industry working group made up of representatives from CANEGROWERS, Productivity Services, SRA PEC Unit, Australian Sugar Milling Council, DEHP and QDAFF to review them. Broader industry and external

interest groups, including NRM regional bodies, were also invited to provide comments on the draft modules. The final modules were reviewed by an Independent Science Panel connected to the Great Barrier Reef Science and the Reef Plan.

The advantage of involving NRM regional bodies at this stage was that it set up a collaborative relationship. Attempts were made to embed BMP in any available grant programs from Federal and QLD governments and the NRM regional bodies are the organisations who roll out that funding.

The disadvantage was that there is a natural tension between the NRM regional bodies' desire to improve water quality and the industry's need to maintain profitability and productivity. This resulted in some conflict between what industry considered to be best practice and what the NRM bodies considered it to be, particularly in relation to water quality outcomes and specifically fertiliser rates. An alternative approach might have been to involve all groups from the outset to try to gain some consensus, but since the ultimate aim of the program is to increase industry adoption, the industry was adamant that any BMPs needed to be realistic.

### **9.7.3 Baseline data**

All four of the NRM regional bodies provided baseline water quality data from the various reef programs. They also had good data from the programs that had previously been delivered in the region about what the current management practices were in each catchment in relation to the practices in the ABCD water quality frameworks.

This enabled a comparison to be made with the industry's assessment of current practices. The advantage of this approach was that it enabled the Smartcane BMP program to be pitched at the right level to encourage further change in practices.

### **9.7.4 Targets**

#### **Targets for BMP adoption**

The program targets are for the number of growers completing modules and the area of properties included in the program, not for attainment of a particular standard. There was no direct involvement by NRM regional bodies in setting the targets for BMP adoption. Internal targets were set by the industry to try to encourage growers into the program as well as to try to remove the threat of impending Reef Regulations.

#### **Targets for NRM outcomes**

The QLD and Australian governments set the water quality indicator targets through the reef planning process. The NRM regional bodies may have had some influence in what those water quality targets were set at, along with industry, scientists and NGOs.

### **9.7.5 Monitoring**

#### **Monitoring of BMP adoption**

The program's MEDCAR (Monitoring, Evaluation, Data Collection and Reporting) system records details automatically when a grower undertakes self-assessment through the web-based system. The system records the number of growers engaged in the program and the area of their production as well as benchmarking their practices. There is no direct involvement of the NRM regional bodies in monitoring BMP adoption.

## Monitoring of NRM outcomes

All the practices in the Smartcane BMP program are aligned with the Paddock to Reef (P2R) modelling and the Reef Report Cards, which means that changes in practices can be linked with changes in water quality.

The MEDCAR generates a report that maps the P2R reef water quality risk management practices to the relevant equivalent practices in the Smartcane system. A grower's assessment answers are joined with the equivalent P2R practices so the aggregated output can be presented in terms of the P2R context. Each P2R practice can have different impacts on reef water quality outcomes so the Smartcane system allows a weighting on the practice to be assigned with regard to its potential impact on water quality. These ratings are provided by the Queensland Government Department of Agriculture and Fisheries (DAF).

Water quality outcomes are also directly monitored by the QLD government Department of Environment and Science (DES) Department of Natural Resources, Mines and Energy (DNRME) and Department of Science, Information Technology and Innovation (DSITI) or by GBRMPA and James Cook University, funded through the Federal Government.

Monitoring is the big gap – growers need to know what is happening in their catchment or in their creek so they can act accordingly. A couple of projects have done on-farm and catchment monitoring engaging through the grower groups with funding from the QLD and Federal governments, and involving CANEGROWERS extension services and NRM regional bodies. When growers can see the impact of their actions in real time, they are more likely to make changes to improve their practices. The issue is that this type of project is very expensive.

### 9.7.6 Reporting

CANEGROWERS is entirely responsible for reporting on the outcomes of the Smartcane BMP program. However, if there are particular projects tied in with work that the NRM regional bodies are doing eg Reef Trust funded projects looking at change on-ground then reporting will occur between industry and the NRM regional bodies involved. This raises the issue of how data can best be shared, which is a challenge.

### 9.7.7 Extension

The cane industry is fairly well-resourced and the majority of extension is paid for directly by the growers through levies. The BMP program funds 13 BMP facilitators who are extension professionals or who are linked closely to industry extension professionals. The industry is also now trying to link industry based extension through Productivity Services with the BMP program.

NRM regional bodies do not have direct involvement in providing extension, but indirectly some extension is funded by Reef Trust programs that are managed by NRM regional bodies. In the Wet Tropics a partnership has been developed (the Wet Tropics Sugar Industry Partnership) which includes Terrain NRM, CANEGROWERS, extension and research staff collaborating on projects where extension is a big part. The partnership has assisted in providing direct and collaborative investment to District CANEGROWERS and Productivity Services within the Wet Tropics region.

One of the findings of the 2014 review of the Smartcane BMP program was the need to coordinate district based extension and training programs that leverage off existing programs (run by Productivity Services, SRA, QDAFF, NRM regional bodies etc) to increase capacity and reach and to provide additional technical expertise. DAF facilitated a meeting with CANEGROWERS, regional NRM bodies, SRA, Productivity Services and government to discuss coordination and the BMP Program Director also met with the regional NRM bodies to discuss the alignment of training support for growers in Smartcane and Reef Trust but this does not appear to have flowed through to the districts. The majority of BMP facilitators indicated that whilst relationships have been established with NRM regional bodies at the district level, competing priorities were proving to be problematic to the roll out of the BMP program.

### **9.7.8 Additional involvement of NRM regional bodies**

The Reef Alliance was established to improve the alignment and integration of reef water quality programs, investment, delivery systems and communication systems by combining the efforts of all stakeholders. Partners include QFF, industry groups, NRM regional bodies, rural land managers and WWF.

CANEGROWERS has always tried to engage with the NRM regional bodies through participation on working groups and other collaborative opportunities. However there has been some tension about which organisation should be the key delivery agent, particularly in the Mackay Whitsundays region where the NRM regional body wanted to deliver the BMP program rather than the industry.

Coordination between NRM regional bodies and Smartcane BMP may allow growers to access grant funding and provide a financial incentive for practice change.

## 9.8 Clean Green Program

### 9.8.1 Introduction

#### Description

The Clean Green Program is the Southern Rock Lobster industry's product certification program based on auditable standards of environmental and ecological sustainability, food safety, product quality, work place safety and animal welfare. The Program, developed and administered by Southern Rocklobster Limited, was launched in 2004 and undertook considerable revision in 2014/15 to update the components of the program that establish best practice standards for vessel safety management systems, and workplace health and safety.

#### Drivers

The Clean Green Program was developed by lobster fishermen largely in response to a food poisoning outbreak that occurred in South Australia and the introduction of the Federal Environmental Protection and Biodiversity Conservation (EPBC) Act in the 1990s. The industry was motivated to demonstrate it was able to take responsibility and act on emerging challenges around work practices, environmental sustainability and food safety.

#### Funding

Funding for the development of the program was provided by industry, the then Department of Agriculture, Forestry and Fisheries, and AAA FarmBis.

#### Link with international standards

There is no direct link with international sustainability standards, however the program aims to train and maintain the industry to world's best practice and guarantee food safety to ensure access to key export markets. In particular, the Program is seen to build on the benefits of the China-Australia Free Trade Agreement (ChAFTA) providing standards for food quality and safety from the point of harvest to end consumer, as well as providing the potential to brand Southern Rock Lobster through a 'Chain of Custody' traceability system to help address country of origin labelling issues.

#### Program content

The Clean Green Program is a standards-based program covering the key areas of:

- Vessel SMS and On-Board WH&S that is specific to the risks of rock lobster fishing vessel operations and workplace risks and hazards.
- Food Safety & Quality to implement Good Manufacturing Practice (GMP) to ensure a premium live, healthy product across the supply chain.
- Animal Welfare as considered not only important in itself, and expected by the community, but also important from an economic perspective; live and healthy rock lobsters achieve a premium price in what is predominately a live-trade industry.
- Environmental Management / Sustainability to incorporate best practice management of fishing operations within the marine environment, including addressing Threatened, Endangered and Protected Species (TEPS) requirements and responsible disposal and recycling of marine wastes.
- Sustainable Management to ensure the wild rock lobster stocks are managed for long term sustainability through ongoing compliance with the EPBC Act 1999.

## **9.8.2 Targets**

### **Targets for BMP adoption**

While a key objective of the program is to provide a mechanism for industry self-assessment, there are currently no specific targets for participation.

### **Targets for NRM outcomes**

The program does not define specific NRM outcomes.

## **9.8.3 Monitoring**

### **Monitoring of BMP adoption**

Southern Rocklobster Limited maintains the program standards and audit protocol, manages the distribution of the Clean Green mark to certified organisations, and maintains a register of the certified organisations. Southern Rocklobster Limited engages SAI-Global to approve the program as appropriate for accredited certification and maintain a register of independent auditors.

### **Monitoring of NRM outcomes**

There is currently no formal role for the NRM regional bodies in monitoring the outcomes achieved through the Clean Green Program.

## **9.8.4 Reporting**

Participants in the Clean Green Program have weekly and monthly record keeping requirements via their On-Boat Induction Manual and Log-Book. To retain certification, participants are also required to conduct annual drills and safety reviews, and to be undertake independent audits with a third party provider within a 4-5 year cycle.

## **9.8.5 Extension**

The requirement to participate in a two-day training course is considered a strength of the Clean Green Program. The training course is supported by a comprehensive On-Board Induction Manual covering all of the program requirements, as well as first aid training. On the completion of training, skippers and their vessels undertake a pre-audit and any necessary corrective actions before an independent audit is arranged to finalise certification. Southern Rocklobster Limited is currently taking steps to deliver the program in a digitised format via development of an application suitable for iPhone and iPad platforms.

## **9.8.6 Additional involvement of NRM regional bodies**

As part of the EMS Pathways to Sustainable Agriculture Program, Southern Rock Lobster Ltd sought to link with the Boards of the NRM regional bodies across their regions of operation in order to achieve local endorsement and increase stakeholder awareness. Whilst awareness of the NRM regional bodies was increased, attempts to engage with the Boards and plan activities failed due to the tight project timeline.

## Endnotes

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<sup>i</sup> Fiona Simson, President, National Farmers' Federation, June 2017

<https://www.nff.org.au/read/5651/farmers-nrm-regions-join-forces-in.html>

<sup>ii</sup> Developed by Alex Osterwalder at Strategyzer

<sup>iii</sup> Red Meat Advisory Council (2015), Meat Industry Strategic Plan 2020 including outlook to 2030

<sup>iv</sup> The United Nations Sustainable Development Goals (SDGs) are a universal set of goals, targets and indicators that UN members are expected to frame their agendas and political policies over the 15 year period from 2015 to 2030. The initiative, which is often referred to as the 2030 Agenda for Sustainable Development includes 17 Sustainable Development Goals, many of which are closely aligned with agriculture production and NRM.

<sup>v</sup> The GRI Standards are global standards for sustainability reporting representing the global best practice for reporting on a range of economic, environmental and social impacts.

<sup>vi</sup> Does Accreditation Pay? Weighting up the value in sustainability accreditation. Rabobank, May 2015.

<sup>vii</sup> Fiona Simson, President, National Farmers' Federation, June 2017

<https://www.nff.org.au/read/5651/farmers-nrm-regions-join-forces-in.html>

<sup>viii</sup> <http://www.agriculture.gov.au/ag-farm-food/levies>

<sup>ix</sup> <http://www.agriculture.gov.au/ag-farm-food/innovation/rural-research-development-for-profit>

<sup>x</sup> <http://www.nrm.gov.au/national-landcare-program>

<sup>xi</sup> <http://www.environment.gov.au/minister/price/media-releases/mr20180814.html>

<sup>xii</sup> <http://www.agriculture.gov.au/ag-farm-food/natural-resources/landcare/national-landcare-program/australian-government-investment-in-landcare>

<sup>xiii</sup> Developed by Alex Osterwalder at Strategyzer



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