

# Pathways to Industry Environmental Management Systems Programme

## Volume 2 Appendices

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Prepared by



**Hassall & Associates Pty Ltd**  
*in association with Michael Williams & Associates  
and Bob Hudson Consulting.*

Level 4, 52 Phillip St  
GPO Box 4625  
SYDNEY NSW 2001.  
Tel: (02) 9241 5655  
Fax: (02) 9241 5684

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**Contact**

Jan Paul van Moort  
Senior Consultant  
Hassall & Associates  
Level 4, 52 Phillip Street  
(GPO Box 4625)  
Sydney NSW 2001  
(02) 9241 5655  
[jvanmoort@hassall.com.au](mailto:jvanmoort@hassall.com.au)

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ABN 95 001 211 007**

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## Project achievements

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### Content

| Project | Evidence of content development   |
|---------|---|
| Cotton  | <p><b>Tools</b></p> <ul style="list-style-type: none"> <li>• Best management practice guidelines for cotton classing developed with the Cotton Classers Association of Australia. 6 classing facilities are currently certified as complying with these BMPs through audits in both 2006 and 2007.</li> <li>• Revised audit documentation tailored for classing facilities, including the development of the random audit process, and guidelines for qualification as an auditor of the classing BMPs.</li> <li>• Best management practice guidelines for fibre quality management - coincided with the planned development of Fibrepak - a comprehensive document with information for managing fibre quality at 'every step, from pre-planting to processing'; grower, manager, agronomist, consultant, retailer, ginner, classer, merchant and shipper with knowledge and management options to influence fibre quality and an understanding of the needs and constraints of the other participants in the fibre supply chain.</li> <li>• Best management practice guidelines for ginning - identified the major sources of contamination and industry segments that introduce the contamination; gins and shippers surveyed; a draft set of ginning BMPs developed in close collaboration with the Australian Cotton Ginners Association; preliminary audit against the first draft of the BMPs to check relevance and utility with a pilot audit currently underway with approximately 27 out of the 40 gins operating in Australia.</li> <li>• Developed a check-list of harvesting BMPs that can be incorporated into fibrepak.</li> <li>• To redraft the BMP manual to meet whole of chain demands - the content of the Manual was reviewed against updated industry information, the recommendations of the 2nd industry environmental audit, legislation and catchment management blueprints and plans. Improvements have been identified for the 3rd edition of the BMP Manual. Further areas identified for modification were: Amalgamation of the Farm Design &amp; Management module with the Land and Water Management module; Suggestions regarding the addition of 'green house gas' BMPs.</li> </ul> <p><b>IP/research reports</b></p> <ul style="list-style-type: none"> <li>• Updated overview of all relevant legislation affecting cotton farmers (state &amp; fed).</li> <li>• Report "Growing the Top Line: A BMP Brand Strategy and Business case" (SWAT Marketing).</li> <li>• Report on requirements for eco-labelling generally, and specifically under ISO 14001 and the EU ecolabel.</li> <li>• Report on operation of the BMP Audit Office.</li> <li>• Report on tracing and identifying cotton physically through the</li> </ul> |

| Project | Evidence of content development  |
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|         | <p>supply chain.</p> <ul style="list-style-type: none"> <li>• Report on harvesting practices and impacts on quality of the Australian crop.</li> <li>• Report on the Use of bale coverings in the Australian cotton industry.</li> <li>• Report on potential ginning BMPs (in preparation for ginning workshop).</li> <li>• Investigation on various legal issues: trade mark issues, certification trade marks, labelling, other standards (Oeko-Tex, Euroflower /EU eco-label) and operation of the Privacy Act - Investigation of a range of branding or labelling systems, including Supima, FiberMax, Signia, Pure Brazil Cotton, Samuel Jackson and Usterised.</li> <li>• Review of catchment blueprints and plans.</li> <li>• Report on international market segmentation of Australian cotton and yarn: assessment of future market demands for high quality cotton and cotton developed under certified best practice production systems.</li> <li>• Report on initial 'benchmarking' of Australian cotton gins against the draft ginning BMPs.</li> <li>• Report on current state of knowledge on impact of moisture on cotton bales.</li> </ul> <p><b>Extension/training</b></p> <ul style="list-style-type: none"> <li>• Development of a 'field to fabric' training course</li> </ul> <p><b>Media/promotion</b></p> <ul style="list-style-type: none"> <li>• Briefing paper on gaining formal recognition for industry (environmental) programs</li> <li>• Papers for presentation at the following conferences:</li> <li>• 2004 International Textile Manufacturers Federation centenary conference <ul style="list-style-type: none"> <li>○ 2005 Cotton Growers Forum.</li> <li>○ 2005 ICAC Plenary meeting.</li> <li>○ 2005 4th EMS in Agriculture Conference.</li> <li>○ 2005 Australian Cotton Shippers Conference.</li> <li>○ 2005 Technical Textiles and Non-wovens Association Annual Conference.</li> <li>○ 2005 4th China International Cotton &amp; Cotton Textile Conference and 2nd China.</li> <li>○ International Knitting Textile Conference.</li> <li>○ 2005 PacifiChem Symposium.</li> <li>○ 2006 Australian Cotton Conference.</li> <li>○ 2006 ICAC Plenary meeting.</li> <li>○ 2007 CropLife General meeting.</li> </ul> </li> <li>• The following media releases and articles were produced: Australian Cotton Grower and Australian Cotton Grower Year Book (2006); Australian Cotton Outlook, January 2006, June 2006; 2006 Australian Cotton Conference media release; Dalby Cotton week videoconference; Cotton Reel, Cotton Australia, April 2006;</li> </ul> |

| Project             | Evidence of content development  |
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|                     | <p>Spotlight on Research, Cotton Research &amp; Development Corporation, August 2005; Spotlight on Research, Cotton Research &amp; Development Corporation, Summer 2005; The Cotton Magazine, August 2006.</p> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>• The following projects and activities were supported by the project: <ul style="list-style-type: none"> <li>○ Investigations into options for verification of BMP status generally.</li> <li>○ Development of a brand for Australian cotton, including reviewing trade mark and certification trade mark issues and requirements.</li> </ul> </li> </ul>   |
| <b>Dairy</b>        | <ul style="list-style-type: none"> <li>• Regionalised DairySAT to include local contact details and legislative requirements and locally applicable best management practices ensured it was relevant to all dairy farmers.</li> <li>• Initial promotion and implementation was primarily through the BetterPRAC pilots.</li> <li>• 1000 dairy farmers have completed DairySAT (12% of Australian dairy farmers) through participation in projects funded or supported by DfT: On the Ground. To date regions have obtained, industry, NLP and regional CMA funding for a further 400 farmers to complete DairySAT over the next twelve months.</li> </ul>   |
| <b>Horticulture</b> | <p><b>Tools</b></p> <ul style="list-style-type: none"> <li>• Introductory guide to environmental management in Australian horticulture.</li> <li>• Guidelines for environmental assurance in Australian horticulture.</li> <li>• A checklist for compliance and auditor criteria for certification in environmental practice.</li> <li>• Final version of the Freshcare environmental code (in conjunction with Freshcare – auditable code) to provide a mechanism for growers to seek environmental certification.</li> <li>• Freshcare environmental code was trialled in WA, QLD and TAS with 9 businesses achieving certification to the code.</li> </ul> <p><b>Research</b></p> <ul style="list-style-type: none"> <li>• Environmental indicators.</li> <li>• Draft vision and strategy for environmental management in horticulture.</li> <li>• Scoping study to obtain a snapshot of existing environmental programs within the agriculture sector and documenting the existing schemes and systems.</li> <li>• Review of the legislative implications of the guidelines.</li> <li>• Technical review.</li> <li>• Final grower trial evaluation report.</li> <li>• Costs associated with certification have been analysed and demonstrate the benefit using the guidelines and the “Freshcare” methodology to achieve environmental assurance.</li> </ul> |

| Project            | Evidence of content development  |
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|                    | <p><b>Media/ promotion/ communications</b></p> <ul style="list-style-type: none"> <li>• Website (part of comms strategy) successfully maintained and updated throughout the program<br/>www.horticulturefortomorrow.com.au; a “home” for interesting material, research papers, newsletters and links relevant to environmental management in horticulture. A number of links have been requested to and from the website.</li> <li>• Marketing tools: a project flyer and display material to help market the project and its information resources.</li> <li>• Media program to leverage the media to raise awareness about the project, the resources available for growers, and the issues.</li> <li>• Communications strategy with communication outputs distributed to the Horticulture for Tomorrow distribution list. This includes: 11 project updates; 13 official media releases; 14 case studies; A number of articles specifically written for HAL publications such as Hortlink (Quarterly) and HAL Annual Reports.</li> <li>• The Horticulture for Tomorrow banner.</li> </ul>  |
| <p><b>Pork</b></p> | <p><b>Research findings</b></p> <ul style="list-style-type: none"> <li>• More than a dozen new research projects have been commissioned to add new BMPs to the National Guidelines or to fill knowledge gaps around odour emissions and pathogen risks: Permeable pond covers to reduce effluent lagoon odour; Guidelines for the beneficial reuse of spent deep-litter bedding; Agronomic trial to determine the optimum application of piggery lagoon solids for crop growth; Sludge recirculation in covered lagoons for improve sludge handling and enhanced biogas yield; Improved piggery effluent management systems incorporating highly loaded effluent lagoons; Design and operation of Sedimentation and Evaporation Ponds (SEPs); Odour emissions from SEPs; Assessment of Nutrient Balance Calculators; Improved lagoon sludge handling; Co-Composting of piggery manure and mortalities; Field panel trials of odour emissions from piggeries.</li> </ul> <p><b>Tools</b></p> <ul style="list-style-type: none"> <li>• A range of EMS tool were developed including the Environmental Management Plan template, an environmental risk identification tool (<i>EnviroCheck</i>) determining conformance with the <i>National Guidelines</i> and a number of Environmental Risk Assessment tools. An Environmental Standard has been developed and guidelines in its implementation.</li> <li>• After the program review in early 2006 the EMS standards were rewritten to enable producers to use a a wider range of EMS approaches including Environmental Management Plans, ISO 14001 &amp; by adding environmental elements into existing APIQ management system.</li> <li>• National Guidelines Revision - Since the first version of the National Guidelines was released in 2004 APL has distributed over 1,000 copies to producers, local councils and State regulatory bodies. A second print run was required in August 2006.</li> </ul> |

| Project               | Evidence of content development   |
|-----------------------|---|
|                       | <p><b>Training course</b></p> <ul style="list-style-type: none"> <li>• A new training course EMPs for Piggeries was developed - covers much of the EPP content, but focuses on risks and NRM practices fit within an EMS approach. The outputs of the EMP training development include: an EMP template; participants manual; facilitators manual; and overheads; APL's EMS Standard level 1 &amp; level 2; Guidelines for implementation of these EMS standards; Revised APL EMS standard; and Draft checklist for APIQ auditing.</li> <li>• The outputs of tools for environmental risk identification and assessment include: EnviroCheck version 1 and version 2; and the Environmental Risk Assessment.</li> <li>• To date short print runs have been run internally for these materials. However, with the documents now finalised KanDream is completing the prepress work for a 1,000 copy print run of these materials.</li> </ul>   |
| <p><b>Seafood</b></p> | <p><b>Seafood EMS Resources</b></p> <ul style="list-style-type: none"> <li>• Industry endorsement of Seafood EMS Resources, available through SSA's bookshop. Seafood EMS Resources designed to enable customisation for widespread adoption of EMS; the resources listed below have been developed or refined with feedback provided by more than 50 industry members. tested and refined through previous FRDC initiatives and the Australian Government's NHT Pilot and Pathways programs. The resources are constantly being promoted through SSA's extensive network of people who are committed to EMS and implementing change.</li> <li>• Seafood EMS Chooser Choose the right environmental management system for your needs.</li> <li>• Seafood EMS Self Assessment and Training Manual Develop EMS and put it into practice, allows for recognition under the National Seafood Industry Training Package.</li> <li>• Seafood EMS Worksheets to help you to work through each EMS step.</li> <li>• Seafood EMS Assessor's Guide for an EMS Assessor to judge your skills and knowledge against the EMS units of competency in the National Seafood Industry Training Package.</li> <li>• Seafood EMS CD-Rom for goal setting and integration into daily business activities.</li> <li>• Seafood EMS Communication Kit helps EMS achievements to be recognised and supported by the community.</li> <li>• Seafood EMS Recipes for Success resource tells you about the experiences of people in the Seafood EMS pilot groups.</li> <li>• Walking the Talk — Seafood EMS Case Studies Case studies of the six Seafood EMS Pilot Groups.</li> <li>• Seafood EMS Engagement of Stakeholders Study helps you to decide on the best strategies to engage stakeholders; result of research, consultation with identified stakeholders in an attitudinal study to: Identify how best to consult with and engage stakeholders in the Seafood EMS process, and Achieve recognition of the value</li> </ul> |

| Project | Evidence of content development  |
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|         | <p>of Seafood EMS in achieving NRM and environmental outcomes. Surveys, interviews, literature reviews and focus group activities were undertaken to gauge the key factors for engagement, over 150 seafood stakeholders were involved in the study.</p> <ul style="list-style-type: none"> <li>• Recognition available under the National Seafood Industry Training Package (NSITP).</li> <li>• over 200 industry members have accessed the Seafood EMS Resources.</li> <li>• Updated and revised the Seafood EMS website communication tool to be more directed to people with specific interests and facilitate individual participation in Seafood EMS activities.</li> </ul> <p><b>Media</b></p> <ul style="list-style-type: none"> <li>• Over 30 articles, media releases and distributed paper newsletters featuring industry participants benefiting through Seafood EMS.</li> <li>• Provided an initial “one stop shop” for Seafood EMS information and assistance.</li> <li>• Communication strategy reviewed and revised by SSA’s National Seafood EMS Coordinator monthly and progress reported in quarterly reports.</li> <li>• Seafood EMS Communication package developed for industry members to communicate achievements at each step of the Seafood EMS process.</li> <li>• Coordinated the extension of outcomes achieved from all Seafood EMS initiatives and programs to raise awareness among the broader industry through SSA EMS Website and EMS newsletters.</li> </ul> <p><b>Certification</b></p> <ul style="list-style-type: none"> <li>• Developed its seafood certification scheme - Australian Seafood Standard – Sustainability certification – minimum requirements to comply with are relevant regulatory requirements, will also provide industry with a mechanism to promote and achieve recognition for meeting regulatory criteria.</li> <li>• Revised Draft Outline Scheme Rules to facilitate integration of EMS, Food Safety MS, etc, in consultation with the SSA Network.</li> <li>• Tested feasibility of the Draft Outline Scheme Rules in context of the existing Australian Seafood Standard.</li> <li>• Examined EA Guidelines with a view to development of a standard and supporting infrastructure for ecological sustainability consistent with MSC, acceptable to DEH, and supported by evidence guidelines and appropriate promotional material.</li> <li>• Presented a proposal to the Seafood EMS Summit 1 June 2005 for endorsement.</li> <li>• Drafted Certification Mark Rules Manual.</li> <li>• Reviewed ASIC/NAC consultants reports and provided comments.</li> <li>• Researched AFS and held communication with AFS Ltd.</li> <li>• Reviewed JAS-ANZ comments on Scheme Rules.</li> <li>• An aquaculture officer engaged for the first two years of the project</li> </ul> |

| Project             | Evidence of content development  |
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|                     | <p>to provide assistance to the aquaculture sector, incl. development of resources tailored to key aquaculture sectors and assisted the formation of the Clyde River Oyster Farmers EMS cluster group.</p>   |
| <b>CANE GROWERS</b> | <ul style="list-style-type: none"> <li>• Communication program undertaken by CANEGROWERS to support the concept of FMS across the industry, success highlighted in the SRDC review (FMS005).</li> <li>• A set of guiding principles (industry framework for FMS) for successful FMS program is to be formalised for an industry wide FMS program, many of these principles were described in the regional industry forum.</li> <li>• Comprehensive material was prepared and provided at each of the consultation sessions.</li> <li>• Brochure “What is FMS” was produced.</li> <li>• A number of magazine articles were produced for the Australian Canegrower magazine (distributed to 80% of sugarcane growers in Queensland).</li> <li>• Website <a href="http://www.sugarcane.net.au">www.sugarcane.net.au</a> developed to host the materials developed as part of the SRDC-DAFF contract.</li> </ul>   |
| <b>Sugar</b>        | <p><b>Tools</b></p> <ul style="list-style-type: none"> <li>• Developed web-based FMS materials (Sugar FMS Tools can be accessed at <a href="http://www.srdc.gov.au/Resources/FMS">www.srdc.gov.au /Resources/ FMS</a>) including regionally-specific databases on legislation, Codes of Practice, risk and performance indicators, Fact Sheets, best management practices and other guides.</li> <li>• Search’ function that allows information to be assembled from the databases of legislation, codes of conduct, best management practices and other content. A library of templates is also available for cane farmers to download and use to document processes, plans, results of monitoring, and other details relevant to their specific FMS. Documentation can be filed electronically or manually, depending on the preference of the farmer.</li> <li>• Identified 50 indicators of NRM risk and farm performance (economic and environmental), developed closely with the QLD Department of Natural Resources and Mines (QDNRM), incorporated in the FMS Check risk assessment along with key WH&amp;S and productivity questions (FMS002).</li> <li>• Sugar FMS tools restructured (following independent review) in collaboration with BSES Ltd advisory and management staff; and 10 case studies delivered. (FMS003).</li> <li>• FMS tools materials developed by AGRECON with about 200 sugarcane farmers, their advisors and other relevant people in projects FMS001 to FMS004 and FMS008.</li> <li>• Land and water management drafting tools for the FMS framework - SRDC-funded framework based on the AgrePRECISE spatial database for recording and reporting compliance to the Land and Water Management Planning requirement of the Queensland Government, for sugarcane farmers who need to trade water for irrigation. (FMS007).</li> <li>• Farm health and safety tools for the sugar FMS framework - SRDC-</li> </ul> |

| Project                    | Evidence of content development   |
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|                            | <p>funded compilation of relevant workplace health and safety legislation and the risks associated with sugarcane farming and harvesting. Key risks incorporated in the 'FMS Check' risk assessment questionnaire in 'Sugar FMS Tools'. (FMS008).</p> <p><b>Research</b></p> <ul style="list-style-type: none"> <li>• Discussion paper on options for auditing and certification of cane farmers who undertake an FMS (FMS004).</li> <li>• Evaluation of the overall FMS program managed by SRDC (FMS005). Baseline and two subsequent surveys of knowledge, attitudes and aspirations of 5% of Australian sugarcane farmers to FMS. 'Balanced Scorecard' evaluation of the SRDC-managed projects funded by 'Pathways to Industry EMS' program.</li> <li>• Report on SRDC-funded Travel and Learning Opportunity project for Mr Robert Quirk, NSW farmer and member of FMS Consultative Committee to attend the inaugural Better Sugar Initiative meeting hosted by World Wide Fund for Nature and Tate and Lyle Sugar Ltd in London, and visit Sth Africa sugarcane EMS.</li> <li>• Independent overview of the Farm Management Systems initiatives - SRDC-funded review of the obstacles to engagement by sugar industry people and organisations in the sugarcane FMS program being managed by SRDC and CANEGROWERS. Recommendations arising from the review were largely adopted and this led to revision of work plans for FMS003.</li> </ul>  |
| <p><b>Chicken meat</b></p> | <p><b>Tools</b></p> <ul style="list-style-type: none"> <li>• National Broiler Farm EMS Audit Checklist.</li> <li>• EMS Audit and Accreditation Protocol.</li> <li>• Accreditation Certificates.</li> <li>• National Meat Chicken Industry EMS guidelines.</li> <li>• On-farm EMS Audit Checklist developed for on-farm visits by auditors for the purpose of providing farms with EMS accreditation, assessed at the Train-The-Trainer workshops, provides criteria to determine grower compliance with EMS standards. It provides supporting information for the auditor to identify documentation that needs to be sighted or data that may need to be collected to demonstrate compliance with the EMS principles. The checklist was designed to complement the auditor training manual and PowerPoint presentation produced for the auditor training course.</li> <li>• An EMS audit protocol has also been developed for the on-farm auditors. This is currently under review and will be finalised by May 2007.</li> </ul> <p><b>Training materials</b></p> <ul style="list-style-type: none"> <li>• Train-the-Trainer courses for selected industry members.</li> <li>• National EMS Training Package to industry and tailored for all states includes: <ul style="list-style-type: none"> <li>○ Participant's Training Manual</li> <li>○ Facilitator's Training Manual</li> <li>○ Generic EMP to provide a framework for the environmentally sustainable operation of the meat chicken farm. The EMP</li> </ul> </li> </ul> |

| Project     | Evidence of content development   |
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|             | <p>reflects the day-to-day operation of the farm, while also recognising the needs of the industry, regulators and the community.</p> <ul style="list-style-type: none"> <li>○ Example EMP</li> <li>● Participants Training Manual includes the general principles of environmental management for meat chicken farms, information and exercises for assessing actual environmental risks at participant's own farm. Participants use these tools to prepare an EMP for their farm.</li> <li>● Facilitators Manual was designed to give accredited facilitators of the EMS for Meat Chicken Farms workshop a structured outline to the training program. It provides background information about the workshop and guidelines for preparation, presentation and assessment.</li> </ul> <p><b>Research</b></p> <ul style="list-style-type: none"> <li>● A gap analysis was conducted to evaluate the national EMS against internationally recognised EMS standards (ISO 14001).</li> <li>● Evaluation via grower surveys.</li> </ul>   |
| <b>Eggs</b> | <p><b>Tools</b></p> <ul style="list-style-type: none"> <li>● Developed "Environmental Guidelines for the Egg Industry in Australia" to encourage best practice – designed for integration into Egg Corp Assured Program.</li> <li>● Expansion of National Egg Quality Assurance Program (Egg Corp Assured) to include EMS - released in May 2006.</li> <li>● The Auditor's Evidence Guide has been the tool used to assess the adoption of EMS during the on farm audits. The Guide outlines a number of environmental issues, such as water use, lighting, odour, dust, noise, by-product disposal, pests and soil erosion, and identifies remediation techniques to combat environmental hazards.</li> <li>● Other components developed and incorporated into ECA Program include: <ul style="list-style-type: none"> <li>• Update of the QA Manual.</li> <li>• Update of the Training Manuals.</li> <li>• Revised and additional HACCP tables.</li> <li>• Additional Forms and update of forms.</li> <li>• Revised and additional Good Farming Practices.</li> <li>• Revised and additional Work Instructions.</li> </ul> </li> <li>● 21 sections of the QA Manual have been updated to include an environmental sustainability component; Two new sections have been added to the QA Manual; Training Manual– 3 modules and facilitators notes have been upgraded; Self Paced Training Manual - 4 modules have been upgraded; HACCP Tables and sections (11) have been upgraded; The original ECA Program included 23 Forms, this has now been updated to 29; The original ECA Program included 21 Work Instructions, this has now been updated to 28; Some of the Audit Table Steps (3) and Forms (2) in the Good Farming Practices have been updated.</li> <li>● To compliment the ECA Manual a series of Standard Environmental Hazard Assessments were done for each sector of the egg industry, including: <ul style="list-style-type: none"> <li>• Egg Production Farms</li> <li>• Egg Grading Floors</li> <li>• Breeder Farms</li> <li>• Hatcheries</li> <li>• Rearing Farms</li> <li>• Egg Production Manufacturing.</li> </ul> </li> </ul> |

| Project | Evidence of content development  |
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|         | <ul style="list-style-type: none"> <li>• Updated ECA audit requirements that include the EMS component.</li> <li>• 7 Factsheets developed: 1. Carcass composting for mortality management. 2. Composting layer manure. 3. Poultry layer manure – How much is it worth? 4. Poultry layer manure – Nutrient budgeting to maximise value. 5. Composition of poultry layer manure. 6. Spreading poultry layer manure. 7. Storing poultry layer manure on farm. A factsheet is currently being developed on subjective monitoring to minimise community amenity (odour, dust, noise and light) related complaints.</li> </ul> <p><b>Research</b></p> <ul style="list-style-type: none"> <li>• Identify Regulations and Undertake Regulatory Review -concise table of environment-related requirements with simple language interpretation of the key issues; report developed to assist access to legal and other environmental requirements for the egg industry; sectors covered include hatcheries, pullet rearing farms, egg production farms, egg grading facilities and egg product manufacturing facilities.</li> </ul> <p><b>Development of Environmental Training Materials</b></p> <ul style="list-style-type: none"> <li>• Environmental Principles for the Egg Industry workshop based training course developed, covers both ECA and the Environmental Guidelines, equips egg producers, pullet rearers and grading floor managers with the skills to either: Develop and implement a stand alone Environmental Management System (EMS) for their enterprise or Complete the environmental components of their existing Egg Corp Assured program.</li> <li>• Participant Training Manual – for each workshop attendee, outlines the general principles of environmental management for egg industry facilities and provides information and exercises for assessing actual environmental issues on-farm; contents include Environmental legal obligations, Potential environmental threats of egg facilities, Best practice location and planning, Best practice design and construction considerations, Best practice management.</li> <li>• Facilitator Manual developed to provide accredited workshop facilitators a structured outline to the training program, background information about the workshop and guidelines for preparation, presentation and assessment.</li> <li>• A separate slide presentation (128 slides) for each state (NSW, WA, SA, Vic, QLD and TAS to address state legal requirements) accompanies the training materials and presents all the material in the Participant Training Manual, and exercises that must be completed that meets the competency and provide detail for individual quality assurance programs.</li> <li>• Training materials to assist pullet rearers, egg producers and egg graders in implementing ECA had also been developed.</li> <li>• Draft training package and the previously developed ECA program formed the basis of delivering EMS to the whole of the industry.</li> </ul> <p><b>Media</b></p> <ul style="list-style-type: none"> <li>• To further promote the adoption EMS for egg businesses through the ECA program, separate 2-page flyers were developed “An</li> </ul> |

| Project     | Evidence of content development   |
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|             | introduction to Egg Corp Assured” and specific information titled “Eggs that are both clean and green”.   |
| <b>Rice</b> | <p><b>Tools</b></p> <ul style="list-style-type: none"> <li>• A database to manage ECP participants has been developed</li> <li>• Environmental Champions Program Website: to promote to broader audiences. <a href="http://www.environmentalchampions.rga.org.au">www.environmentalchampions.rga.org.au</a>; includes handy hints, solutions, latest news etc.; also a resource for participants - password protected section holds electronic copies of the self assessment tools. The long term aim to enable the tools to be completed on-line.</li> <li>• The program has been adapted to Victorian Standards</li> <li>• Revised Better Burning Brochure has been developed</li> </ul> <p><b>Research</b></p> <ul style="list-style-type: none"> <li>• Farm to Catchment links have been clearly established.</li> <li>• Financial case study undertaken.</li> <li>• Methane Trial to ‘ground truth’ methane emissions completed.</li> <li>• At the commencement of funding, Levels 4 &amp; 5 were in a conceptual phase. 15 landholders are trialling the portion of the content that already exists within these levels.</li> </ul> <p><b>Training</b></p> <ul style="list-style-type: none"> <li>• Inaugural ECP Development and Leadership Program developed and delivered to 23 participants by the Australian Rural Leadership Foundation.</li> <li>• Greenhouse training modified to focus on cost savings &amp; efficiencies.</li> </ul> <p><b>Media</b></p> <ul style="list-style-type: none"> <li>• Industry launch with Senator Colbeck in August 2005.</li> <li>• Promotional program video completed.</li> <li>• Radio campaigns have run to educate growers about the program.</li> <li>• Greenhouse booklet showcasing industry launched.</li> <li>• ECP displays developed, as a result of the communication strategy.</li> <li>• A range of templates were developed in the following formats: Media releases; Newsletters/grower bulletins; Radio/Television interviews; Website; PowerPoint presentations; Fact Sheets.</li> <li>• Key message development: process included a message development workshop and message testing session with a range of landholders.</li> <li>• Key decision maker brochure developed based on the key messages to concisely promote the program to a broader audience.</li> <li>• Landholder Engagement Brochure: designed to increase landholder interest in participating in the program by removing fears/perceptions.</li> <li>• Display Promotion: developed and utilised in various forums across the region and at external conferences, supported by staff to answer any questions and ‘sow’ the seed of thought for those who</li> </ul> |

| Project | Evidence of content development  |
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|         | <p>express interest in joining the program.</p> <ul style="list-style-type: none"> <li>• Video showcasing ECP participants and what ECP means to them.</li> <li>• Communications Toolkit: Step Communication provided staff training and a toolkit to ensure that all ECP communications were consistent, professional and effective. As resources are limited, the toolkit was designed to build the capacity of staff to promote the program.</li> <li>• Over 105 positive media articles have been written about the ECP.</li> <li>• Website has also had over 1000 hits recorded.</li> <li>• Three regional coordinators commenced in March 2005, to manage implementation of ECP in each irrigation region.</li> <li>• Biodiversity Strategy &amp; Plan being used in review of National Biodiversity Framework.</li> </ul>   |
| VFF     | <p><b>Training materials</b></p> <ul style="list-style-type: none"> <li>• A set of 6 booklets, entitled Environmental Requirements for Victorian Farmers, were produced by DPI in 2005. The booklets are written clearly and concisely and cover legal responsibilities, codes of practices and guidelines for: (1) Water Management, (2) Soil Management, (3) Biodiversity Management, (4) Chemical Management, (5) Weed and Pest Management, (6) Waste Management.</li> <li>• The booklets were launched at the VFF Annual Conference in July 2005 and made available to attendees. The VFF project and DPI jointly funded the production of 7,000 sets of the booklets. About 3,500 sets of booklets have been distributed. The booklets have been a key component of the project's training materials that are provided to farmer participants.</li> <li>• The booklets have been installed as PDF files on the DPI website and there are direct links to the booklets via the VFF and DSE websites.</li> <li>• 8 workbooks, course notes, key materials developed.</li> <li>• A range of workbooks and tools have been developed by project partners for use in the EMS training of farmers. The key workbooks (EBMP, DairySAT, VERA) were provided and widely used. The EBMP workbook was revised (3<sup>rd</sup> edition) and proved to be very popular. A range of about 12 EMS tools is available on the websites of stakeholders. The project funded printing of DairySAT workbooks.</li> </ul> <p><b>Tools</b></p> <ul style="list-style-type: none"> <li>• Established an Environmental Law Discussion Forum on the <i>Rural Law Online</i> website, <a href="http://www.rurallaw.org.au">www.rurallaw.org.au</a>, which is a very popular and effective website for farmers and people associated with agriculture and land management. The discussion forum drew on the expertise of lawyers and others who acted as facilitators. These experts responded to queries and comments that were posted by anyone in the discussion forum via the website.</li> <li>• 12 other decision support tools were developed.</li> </ul> |

| Project            | Evidence of content development   |
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|                    | <p><b>Research</b></p> <ul style="list-style-type: none"> <li>• The Pathways Officers developed an agreed list of actual or potential benefits. They routinely reviewed the acknowledged benefits of farmers having some form of EMS and documented details of examples of where and how these benefits are being proven.</li> </ul> <p><b>Media</b></p> <ul style="list-style-type: none"> <li>• Detailed communication plan developed and implemented. The main communication tools and tactics used to implement the Communication Plan included: An emphasis on consistency in EMS messages and approaches; Visits and presentations to VFF branch and Landcare group meetings, etc to speak about the project/ EMS and EMS training opportunities; A media campaign and testimonial stories for rural press and radio, using the major, statewide rural media in Victoria as well as the regional channels; Project awareness leaflets, brochures, newsletters, etc; VFF communication channels (about 230 branches that cover the whole state and frequent media releases and a bimonthly magazine sent to all VFF members); The full range of the communication channels of the key project partners, ie DPI, DSE, CMAs, Landcare Australia Ltd; The websites of the VFF, DPI, DSE, CMAs, Landcare Australia; VFF EMS project information and stories in publications relevant to the target, client groups.</li> <li>• 53 media opportunities resulting in articles in newspapers, radio or TV.</li> <li>• There was a variety of ongoing communication by the VFF about EMS and the VFF project, such as items in each edition of the VFF bimonthly magazine (<i>Victorian Farmer</i>) which is mailed to the approx. 16,000 members; the VFF website, monthly mailouts to the 230 VFF branches.</li> </ul> <p><b>Recognition</b></p> <ul style="list-style-type: none"> <li>• Developed farm gate signs for recognition, qualifying criteria were that the property managers need to have completed EMS Stages 1 and 2 and have evidence of key actions from the self-assessment (Stage 1) being implemented.</li> <li>• 2 websites created or significantly enhanced.</li> </ul> |
| <p><b>Wine</b></p> | <p><b>Tools</b></p> <ul style="list-style-type: none"> <li>• 2005/2006 and 2006/2007 AWIS spray diary insert.</li> <li>• A survey template to assist companies integrate the AWIS National Indicator Questions into their company spray diaries.</li> <li>• AWIS Spray Diary insert spreadsheet - to facilitate survey data entry, data analysis and graphing, and provision of summary data for collation into a national report.</li> <li>• AWIS Biodiversity Fact Sheet.</li> <li>• 'Australian Wine Industry Stewardship in Plain English' – Fact Sheet.</li> <li>• 'AWIS National Indicator Questions' – Fact Sheet.</li> </ul>  |

| Project | Evidence of content development   |
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|         | <p><b>Research</b></p> <ul style="list-style-type: none"> <li>• Draft customer review reports circulated to key stakeholders for validation before being recommended by the Wine Industry National Environment Committee and subsequently endorsed by the Winemakers' Federation of Australia. The reports were then made available on the WFA website.</li> <li>• Systems map of international and domestic wine industry environmental programs and activities published under the title 'Wine and Environment: What's going on in the Australian wine industry?' The document was recommended by the Wine Industry National Environment Committee and subsequently endorsed by the Winemakers' Federation of Australia.</li> <li>• National Catchment Overview to review regional NRM plans, assess their relevance and identify opportunities for wine industry contribution to regional catchment targets, identify the most common set of issues and these issues used to develop National Indicator Questions used in AWIS spray diary insert surveys.</li> <li>• National Catchment Overview Regional Summaries (34 regions covered).</li> <li>• Preparation of regional information packages - results of the National Catchment Overview used to compile regional profiles on potential contributions to targets. A web resource was developed that included: <ul style="list-style-type: none"> <li>○ Regional committee membership lists, contact details and meeting minutes.</li> <li>○ 'AWIS in Plain English' Fact Sheet</li> <li>○ 'Wine &amp; Environment: What's going on in the Australian wine industry?'</li> <li>○ Customer review report and summary.</li> <li>○ National Catchment Overview reports for each relevant natural resource management region.</li> <li>○ Links to natural resource management board websites and other online resources.</li> <li>○ AWIS pilot report.</li> <li>○ AWIS spray diary insert and National Indicator Question Fact Sheet.</li> <li>○ Industry case studies.</li> </ul> </li> <li>• In May/June 2007, packages containing all professionally published documents will be sent out to all wine companies, industry associations and natural resource management boards.</li> <li>• 'Trends in Environmental Assurance in Key Australian Wine Export markets' - highlighting current and anticipated environmental assurance requirements in important markets. A three page summary was also produced to support information dissemination.</li> <li>• 'Wine &amp; Environment: What's going on in the Australian wine industry?' - the AWIS systems map – documenting the existing level of environmental activity in the Australian wine industry, and later expanded to include international initiatives of relevance to the wine industry.</li> </ul> |

| Project              | Evidence of content development   |
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|                      | <ul style="list-style-type: none"> <li>• ‘Environmental Stewardship in the Australian wine industry – General Edition’ was produced for distribution to export markets and public interests, whereas the ‘Industry Edition’ was prepared to include greater detail on regional NRM arrangements and as a ‘call to action’ for the domestic wine industry. These documents will be sent out in a package to all Australian wine companies in May 2007.</li> <li>• AWIS Pilot report.</li> <li>• AWIS Case Studies (19).</li> <li>• AWIS information for domestic industry and general distribution.</li> <li>• 1 websites created or significantly enhanced.</li> <li>• 23 training sessions, workshops, seminars or other skills and training events conducted.</li> <li>• 63 workbooks, course notes or other key materials developed.</li> </ul> <p><b>Media</b></p> <ul style="list-style-type: none"> <li>• 19 media opportunities resulting in articles in newspapers or on radio or television created.</li> <li>• Various media/journal articles as attached.</li> <li>• Regional coordination and engagement - Funding was provided for 3 FTE regional coordinator positions. To improve regional coverage, this allocation was spread across 5 part-time regional coordinator positions, with the regional allocation based on annual crush.</li> <li>• AWIS Regional Committee Membership register and Meeting Minutes’ Summary.</li> <li>• Committee membership and minute summaries were posted online to document feedback arising from industry in the different regions, to increase the accountability of feedback and input provided by industry representatives, and to encourage regional consultation through Committee members.</li> </ul> |
| <p><b>Grains</b></p> | <p><b>Research</b></p> <ul style="list-style-type: none"> <li>• ABS and ABARE data was evaluated and modified to allow use in comparing practices used on-farm against shire and regional levels, and for setting baseline levels for comparisons.</li> <li>• Policies and Reports - The Australian Grains Industry Environmental Policy; The Grains Industry Environmental Assurance Pathways Project - General Description; Broadacre Forum Report; Detailed description of the Database and potential uses (“Delivery Platform”); Grains Industry Trends; Industry trends for NSW DPI; Implementation Plan for Regional Workshops for Delivery Platform for Grains Industry EMS Project; An evaluation of current and previously developed EMS checklists, self assessment tools and other materials, which assisted in identifying the need for a new delivery tool.</li> <li>• Supporting Documents - Scientific Review Paper linking practices with environmental impacts and indicators; Farming Practices as the means to Environmental Assurance and Reporting in the Australian Grains Industry; Grain Production and Environmental Assurance – both use modern farming systems; Why Data and</li> </ul>  |

| Project | Evidence of content development   |
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|         | <p>information is essential for industry; Why comparisons are valuable for farmers.</p> <ul style="list-style-type: none"> <li>• Market research - Surveys: Export industry; Market Surveys: Domestic processors and manufacturers / retailers(on the demand for environmental assurance from grain marketers, processors and retailers of grain-based food products - confirmed lack of market signals, both in price or access, for grain and grain products produced under any form of EMS or environmental assurance system and indicated signals will not emerge for at least 15 years); IPSOS “Establishing Value” Project in collaboration with meat and wool industries (with other consumers and users of environmental information, for example NRM bodies, community groups and Government agencies - confirmed some demand for environmental information, based on farming practices that have environmental benefits, NRM bodies saw value in receiving data about key farming practices as assisting reporting against catchment targets); Overall summary of all three surveys.</li> </ul> <p><b>Tools</b></p> <ul style="list-style-type: none"> <li>• Designed a system that allows producers to measure practices, have these evaluated and benchmarked, provide environmental indicators; refined to take existing available data; produces report that shows levels of practices of interest and allows comparisons (shire, AE-Zone and region, or state), describes the best or favourable practices of interest and refer to further information; amalgamates indicators and practices at a catchment scale for reporting to NRM bodies.</li> <li>• Website is hosted on Grains Council of Australia Ltd’s Website with links on front page, comprises 7 pages and 35 documents available for viewing or download. Project website developed to hold and make available information on the project, to enable download of the data form and show an example report for farmers, site updated to hold more information pages and a resource listing page for accessing the latest research and extension information on the best farming practices, to further assist with adoption.</li> <li>• Tools - Excel sheet for basic Benchmarking; Data Input Form; Example farmer report; General Presentation of the Project – PowerPoint show; A spreadsheet based evaluation tool of practices used on-farm developed and published early in the project to allow producers some indication of their comparative performance based on 2001 ABS data.</li> </ul> <p><b>Communications/media</b></p> <ul style="list-style-type: none"> <li>• Early results from the communications strategy - ABC Radio Interviews across Australia in early 2007 - ABC South East QLD broadcast on QLD Country Hour; ABC South West Slopes &amp; Riverina, broadcast on Rural Report 6.40am across the whole of south eastern NSW; ABC Albany, WA – Broadcast in Southern WA Wheat belt. Newspaper articles in February and March, and a large feature article is due to appear in the June-July 2007 Groundcover magazine mailed to every grain farmer in Australia. Previously articles have appeared in THE LAND (a newspaper issued by Rural Press) and in Groundcover in November 2006. (Appendix 6 -</li> </ul> |

| Project         | Evidence of content development   |
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|                 | Details of general communications and presentations).   |
| <b>Wool</b>     | <p><b>Research</b></p> <ul style="list-style-type: none"> <li>• Market research was undertaken to better understand the requirements of local “audiences” and global “customers”: Local – research by Ipsos; Overseas – The Woolmark Company researched the requirements of retailer and clothing manufacturers in Japan, Europe and the USA.</li> <li>• Review of other EMS and farmer self assessment systems – through competitive tender, 6 organisations or groups active in the area of EMS were supported to enable the project to make an initial assessment of the robustness /usefulness of these various EMS systems and to identify any gaps.</li> </ul> <p><b>Tools</b></p> <ul style="list-style-type: none"> <li>• Develop 4 Best Practice “Modules” - natural resource management, chemical residues management, stock management and down-stream processing. Each module covered – Background; Procedures / Practices; Metrics and Signposts for more information.</li> <li>• Best Practice Modules were converted into questionnaires to obtain environmental and livestock management practice information from producers.</li> <li>• Established 4 data collection methods: facilitated workshop; un-aided individual completion; web based survey; and a CATI telephone interview.</li> <li>• Developed a database to capture data and produce an individualised report back to farmers and an aggregate report targeted at other audiences such as customers, NRM bodies and other interested stakeholders.</li> </ul> <p><b>Communications</b></p> <ul style="list-style-type: none"> <li>• Communication initiatives and linkages into training packages (such as AWI / MLA’s Making More from Sheep) were developed to relay information about the project.</li> </ul> |
| <b>Red meat</b> | <p><b>Research</b></p> <ul style="list-style-type: none"> <li>• A report which documented the rationale behind the three industries’ approaches to environmental assurance.</li> <li>• A comprehensive report which provided the design specifications for the LPA QA environmental module and Landleader, a summary was published in the Australian Farm Institute Journal, and will be presented at the 2007 “keep it real” conference.</li> <li>• Six case studies in which the business benefits of NRM were analysed. Three of these six case studies were published in MLA’s Prograzier magazine.</li> <li>• A comprehensive set of recommendations for the EDGENetwork. Future re-development of EDGE products will consider these recommendations and enhance the likelihood that future courses will promote on-farm monitoring.</li> </ul> <p><b>Tools</b></p> <ul style="list-style-type: none"> <li>• A web-ready database containing 64 natural resource monitoring tools. The database will be added to the MLA website providing</li> </ul>  |

| Project         | Evidence of content development   |
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|                 | <p>producers with a quick and easy way to search for a specific monitoring tool. The database rates each tool on its accuracy, applicability across regions and cost.</p> <ul style="list-style-type: none"> <li>• An environmental module for the LPA QA Program which has been refined by producers. Specific northern and southern checklists have been developed to assist producers and auditors demonstrate progress against the performance indicators.</li> <li>• A paper based survey, a web based survey, a telephone survey, a communications plan, a M&amp;E framework and a focus group report.</li> <li>• 1087 survey responses, plus an industry overview which will be useful for communication purposes.</li> </ul>  |
| <b>Organics</b> | <ul style="list-style-type: none"> <li>• Desktop review by an Organic/EMS Expert Committee, examined the National Organic Program and its processes (Planning, Standards, Inspection, Certification and Accreditation) to enable positive on ground environmental management; reviewed, identified and made recommendations as to where alignment of standards and planning for key NRM issues can occur.</li> <li>• 3 examples of draft guiding documentation to support farmers' planning and adoption developed for discussion and illustrate potential use; included draft training material to support national consistency and alignment of the organic inspectorate. (Draft Guidelines - Environment Plan; Inspectorate; OMP development.).</li> <li>• Organic Inspection Certification and Accreditation – a Guide.</li> <li>• Organic/EMS Comparison.</li> <li>• Desk-Top Review Recommendations - Workshop Background Document.</li> <li>• Workshop Notes and Recommendations.</li> <li>• Workshop Recommended Changes to the National Standards for Organic and Biodynamic Produce.</li> <li>• Two fold brochure- 4000 copies printed for industry dissemination.</li> <li>• Press release- posted electronically on industry networks.</li> </ul> |
| <b>QFF</b>      | <p><b>QFF</b></p> <p><b>Policy coordination</b></p> <ul style="list-style-type: none"> <li>• QFF FMS Framework moved from draft nearing completion, with descriptions relating to the common elements of programs agreed to now - outlines approach for development and implementation of FMS programs by QFF's industry member organisations QFF's coordinating role; provides a means of coordinating the efforts of QFF members who are developing and delivering FMS programs to primary producers and provides a defined role for QFF as an overarching body.</li> <li>• December 2006 QFF produced the FMS Framework booklet and fact sheet in hard copy, posted on QFF website.</li> <li>• FMS Implementation Program for 2006-2010 developed and included in the FMS Framework publication.</li> </ul> <p><b>Communications</b></p> <ul style="list-style-type: none"> <li>• Six-monthly FMS Update on Progress Reports have been prepared</li> </ul>   |

| Project | Evidence of content development   |
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|         | <p>(May 2006, December 2006, and June 2007) and published on QFF website.</p> <ul style="list-style-type: none"> <li>• 15 case studies on FMS by industry sector in a booklet completed and 2500 copies printed using QEPA funds, booklet launched by Director General of QEPA August 2006 Landcare Conference in Brisbane attended by 500 delegates, distributed to 50 delegates at QMDC Sustainable Agriculture seminar, Goondiwindi and 500 delegates at the International RiverSymposium, Brisbane in September 2006, available on the QFF website.</li> <li>• Regular industry columns in Queensland Country Life and Blues Country highlighting industry FMS programs and regular reports and articles in the QFF Weekly Bulletin (email newsletter with direct recipients numbering 1500).</li> <li>• A newsletter “Partnerships for Profit and NRM” highlighting partnerships between industry and regional NRM groups was prepared by QFF in December 2005.</li> <li>• Enhancing Sustainable Agriculture Conference and Trade Show - Conference brochures and banners were produced highlighting each industry FMS program. Reports of the conference occurred in the QFF Weekly Bulletin. The FMS Fact Sheet and QFF brochure were distributed in conference satchels. Media releases at the conference included: True costs of sustainable farming examined; Achieving sustainable environmental outcomes; Sustainable farming achievable with partnerships; Climate change and its implications for farmers.</li> <li>• Media coverage of the conference included a special broadcast on ABC Country Hour at the conference and significant coverage in Queensland Country Life.</li> </ul> <p><b>Nursery and Garden Industry Queensland (NGIQ)</b></p> <p><b>Tools</b></p> <ul style="list-style-type: none"> <li>• For nursery production, FMS consists of: Nursery Industry Accreditation Scheme Australia Best Management Practice (NIASA BMP); BioSecure HACCP; and EcoHort - an environmental management system with formal certification.</li> <li>• NGIQ focused on the finalisation, trialling and rollout of the EcoHort component of the FMS program as part of this Pathways project.</li> <li>• NGIQ developed a number of Nursery Production Farm Management System tools including: EcoHort Grower Workbook for workshop participation; EcoHort Workshop trainers Guide; EcoHort Workshop Trainer PowerPoint presentation; Ecohort Guide; EcoHort Brochure.</li> <li>• NGIQ publications - FMS brochure, EcoHort Training Workbook, EcoHort Workshop flyers. The project distributed over 200 copies of the EcoHort Guide to growers in SEQ. The NGIQ Farm Management Systems brochure was mailed to 1020 production nurseries. Brochure details the industry programs of NIASA, EcoHort &amp; BioSecure HACCP, that constitute the Nursery Production FMS and the overall commitment the NGIQ has for driving change at an enterprise level.</li> </ul> |

| Project | Evidence of content development  |
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|         | <p><b>Communications</b></p> <ul style="list-style-type: none"> <li>• Info regularly submitted in industry newsletter 'Leaflet' including specific information relevant to the EcoHort initiative, up to 10 articles.</li> <li>• A major advertorial included in national journal 'Australian Horticulture' April 2006. The journal has a 5000 distribution list across the Australian Nursery Industry.</li> <li>• EcoHort™ Nursery Paper electronic and hard copy distribution across the sector in December 2006, estimated target audience of 500 Queensland producers.</li> </ul> <p><b>Growcom</b></p> <p><b>Tools</b></p> <ul style="list-style-type: none"> <li>• Develop regionally customised Growcom FMS tools.</li> <li>• Growcom a generic soil health and nutrient management module which complements the existing water use efficiency module, currently being trialled in Burnett region to determine any regional specificity requirements.</li> </ul> <p><b>Communications</b></p> <ul style="list-style-type: none"> <li>• Growcom articles in Bundaberg Fruit and Vegetable Growers monthly magazine, the Queensland Country Life and local ABC radio all acknowledged by various growers as ways they heard about FMS, and some of the activities of the Growcom FMS program.</li> <li>• Since March 2006 Growcom's FMS program communicated to horticultural community in Burnett Mary region via many channels including grower surveys, grower meetings, local media, seminars, workshops and individual farm visits.</li> <li>• Dairying Better n Better Queensland Dairyfarmers' Organisation (QDO)</li> <li>• Communications</li> <li>• Two sets of Dairying Better N Better for Tomorrow brochures and posters.</li> <li>• QDO prepared articles published in Australian Dairyfarmer magazine, Queensland Country Life, Queensland Dairyfarmer, Dairy Australia – Regional Development Program E-Chat, Australian Landcare Magazine, Australian Farm Journal, BMRG Newsletter and the Northern Dairyfarmer Magazine. Regular notices posted on the dairyinfo.biz website and the QDO Weekly Update bulletin, radio interviews conducted with ABC Bundaberg and ABC Rural Report.</li> </ul> |
| TFGA    | <p><b>Tools</b></p> <ul style="list-style-type: none"> <li>• FarmSAT August 2006 (Version1) developed - prototype tool tested with over 60 producers and critically reviewed by the FarmSAT team and Steering Committee.</li> <li>• Tool also prompts for any actions required to be documented against the specific question. There is also a Farm Action Plan</li> </ul>   |

| Project                 | Evidence of content development   |
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|                         | <p>which can be used to consolidate intended actions along with target completion date and identification of the person responsible for undertaking the action.</p> <ul style="list-style-type: none"> <li>• Creation of a detailed toolkit to support and add depth to the simplicity of the checklist.</li> <li>• Information lists including: Toolkit contents (including details of reference related to the FarmSAT sections); Directory of Agricultural Consultants; Directory of key DPIW contact areas; Directory of industry groups; Directory of OH&amp;S contacts.</li> <li>• Prototype electronic version of FarmSAT.</li> </ul> <p><b>Research</b></p> <ul style="list-style-type: none"> <li>• Identification of On-Farm Benefits of Environmentally Responsible Agricultural Practices report objective being to identify and quantify areas where environmentally responsible agricultural practices are also good business practices.</li> </ul> <p><b>Communications</b></p> <ul style="list-style-type: none"> <li>• NRM regions, contacts and priorities brochure.</li> <li>• Communication campaigns - ABC Radio Country Hour, Launceston Examiner, North West Advocate and Tasmanian Country Newspapers, TFGA's Primary Focus Magazine, Women in Agriculture Newsletter and the Agfest Field Days.</li> </ul>   |
| <p><b>WAFarmers</b></p> | <p><b>Training materials</b></p> <ul style="list-style-type: none"> <li>• WAFarmers developed workshop materials utilising existing EMS toolsets in consultation with broadacre and mixed farming.</li> <li>• Materials developed for the workshops and other outreach in collaboration with Curtin University of Technology's Muresk Institute and DAFWA included: <ul style="list-style-type: none"> <li>○ Several Power Point presentations which were continually upgraded.</li> <li>○ A six minute DVD – "Pathways to the Future: Western Australian Sustainable Agriculture in a changing world" which could be played at exhibition stands.</li> <li>○ An extended 35 minute version of the DVD which uses interviews and examples to illustrate the benefits of implementing on-farm EMS. The topics included are: Overview: Sustainable Agriculture in a Changing World; Systematic Adaptive Management; Systems and Technologies in modern sustainable agriculture; Monitoring Strategies and Adaptive Management.</li> </ul> </li> <li>• Evaluation documents for workshop attendees to complete at the conclusion of the workshop which provided constructive feedback to assist the project.</li> </ul> <p><b>Tools</b></p> <ul style="list-style-type: none"> <li>• FFF framework contains all of the elements which are necessary for an EMS infrastructure in WA and rendered redundant the creation of any other framework (flexible, producer focused and readily available, links with other NRM initiatives, farmer recognition).</li> <li>• Self Assessment Tool and Action Planner are a subset of the</li> </ul> |

| Project           | Evidence of content development   |
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|                   | <p>framework, has five areas of concern, rates practices as poor, unacceptable or illegal, Current Recommended Practices (CRP's) and best management practices identified to address the five areas of concern.</p> <ul style="list-style-type: none"> <li>• Farming for the Future SAT is online at <a href="http://www.agric.wa.gov.au">http://www.agric.wa.gov.au</a>.</li> <li>• Self-Assessment Tool (SAT): Guide to Compliance and Best Practice Ratings. The WAFarmers Pathways SAT is an issues-based tool, designed to assess the level at which on-farm processes and procedures are currently being practised, ranked from 1 to 5.</li> <li>• Priority tool – linked to Pathways SAT, an Excel spreadsheet which allows producers to transfer the scores from the SAT workbook and rate farming practices in priority of action, the SAT and Priority Tool were the fundamental means of introducing farmers to an EMS for their business.</li> </ul> <p><b>Communications</b></p> <ul style="list-style-type: none"> <li>• Two large banners to attract the attention and interest of passers-by at conferences, farm and field days.</li> <li>• A brochure on EMS for distribution to the public.</li> <li>• Articles and flyers for the purpose of advertising and promotion in newspapers, newsletters and brochures.</li> </ul> |
| <p><b>PGA</b></p> | <p><b>Research</b></p> <ul style="list-style-type: none"> <li>• An <i>EMS awareness survey</i> was sent to pastoralists in the Southern Rangelands, allowed the project to determine pastoralists knowledge, ideas were used to develop the workshop presentation and activities and provided the basis for discussion on how EMS fits within the WA pastoral context. The survey was completed by 35 pastoralists and was used to tailor the EMS message in workshop presentations<sup>2</sup>.</li> </ul> <p><b>Tools</b></p> <ul style="list-style-type: none"> <li>• “Rangecare” concept developed and discussed during the workshop series, culminating with a workshop held at the annual pastoral conference.</li> <li>• Delivered eight workshops where 140 pastoralists contributed their views, gathered feedback and characterised a potential model for environmental management assessment in the WA rangelands.</li> <li>• PowerPoint presentation to introduce the concept of “EMS” and its potential role in the WA pastoral industry, gave an overview of the Pathways project and the scope of an EMS plan, outlined the current arrangements for assessing the management of pastoral leases under the current lease assessment processes and ended by asking the question “where to from here?”</li> </ul>                  |

## Linkages

| Project              | Evidence of linkages created  |
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| <p><b>Cotton</b></p> | <p><b>International</b></p> <ul style="list-style-type: none"> <li>• Industry stewardship demonstrated, through involvement and contact with the Better Cotton Initiative, the International Cotton Advisory Committee and the World Wide Fund for Nature (industry positioning).</li> <li>• The Project has been assisting ACSA in their work with Izumiya, including the requirements for tracking of the BMP cotton, and drafting the Heads of Agreement between Izumiya, ACSA and Cotton Australia that governs contributions by each party to the cost of various promotional material, support and use of Cotton Australia's 'Cotton Mark' and the payment of a licence fee by Izumiya to ACSA.</li> <li>• Cotton (only producer representation) presented to BCI (a range of stakeholders brought together by World Wide Fund for Nature: banks, retailers, other non-government organisations (NGO's) working on cotton-related issues, scientists and cotton traders). It was explicitly noted that Australia's efforts in environmental management were leading the world. BCI steering committee includes large of cotton, a range of environmental NGO's, the United Nations Environment Programme. Engagement with the Better Cotton Initiative is built on the expectation that it provides an opportunity for credible, third party endorsement of the BMP Program that will provide a means to demonstrate environmental stewardship.</li> <li>• International Cotton Advisory Committee (ICAC) is an inter-governmental international peak body for the cotton; role is to raise awareness of emerging issues, provide information relevant to problem solving and foster cooperation. Increased attention on the environmental and social impacts of cotton production has become part of ICAC's brief of issues subject to the above role. As ICAC seeks to provide both a forum and a mechanism for addressing impacts of cotton production, the Australian BMP perspective was presented to delegates at the ICAC Plenary meeting in 2005, providing opportunity to demonstrate environmental stewardship to a large group of industry and government representatives. In 2006 Australia was again invited to present a paper on some of the technical aspects of demonstrating environmental responsibility. The 2006 meeting led to the formation of an Expert Panel on the Social, Economic and Environmental Performance of cotton production and Allan Williams, the developer of the BMP Manual, has been invited to fill the role of chair of the Expert Panel.</li> <li>• Industry involvement with the ICAC's Taskforce on Commercial Standardisation of Instrument Testing of Cotton, including attendance at CSITC meetings in September 2005, March 2006 and September 2006.</li> <li>• Industry involvement with the ICAC's Expert Panel on the Social Economic and Environmental Performance of Cotton.</li> </ul> |

| Project | Evidence of linkages created   |
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|         | <ul style="list-style-type: none"> <li>• Australian Cotton Shippers export development tour to China (2005).</li> <li>• Industry involvement with Japanese trading houses sourcing BMP cotton (Izumiya, Daiichibo), including drafting heads of agreements, BMP certificate wording and development of background information on BMP.</li> <li>• Meetings with Marks and Spencer, and a pilot shipment of cotton to India destined for M&amp;S.</li> <li>• Initial development of the definition of the 'Better Cotton' concept, and attendance at BCI meetings in October 2004, June 2005, March 2006, September 2006 and May 2007.</li> </ul> <p><b>Within industry – for project fit</b></p> <ul style="list-style-type: none"> <li>• The existence of the Project, and the development (or at least re-establishment) of more formal communication links between some of these industry sectors has taken place. <ul style="list-style-type: none"> <li>○ Between classers and ginners (driven by need to agree on BMPs that affected both sectors, and a desire for more timely communication).</li> <li>○ Between classers and merchants.</li> <li>○ Amongst classers.</li> <li>○ Amongst ginners.</li> <li>○ Between harvesters and industry.</li> <li>○ Between industry and Japanese trading houses.</li> <li>○ Between industry and Better Cotton Initiative.</li> <li>○ Between industry and the International Cotton Advisory Committee.</li> <li>○ Between industry and CMA's.</li> <li>○ Between industry (project) and Australian Wool Innovation, Meat &amp; Livestock Australia and Grains Council of Australia.</li> </ul> </li> <li>• Participation in 2 industry-wide 'Field to Fabric' regional tours (2005 and 2006).</li> <li>• Participation in the CRC's 'Environmental Performance Indicators' workshop (December 2006).</li> <li>• Attendance at various meetings of Australian Cotton Growers Research Association, Cotton Growers Forum, Cotton Australia, Australian Cotton Classers Association, Australian Cotton Ginners Association, Australian Cotton Shippers Association, Cotton Consultants Australia, the BMP Management Committee, the Cotton Evaluation and Assessment Committee, the CRC 'Fibre Extension Focus Group', the Australian Cotton Industry Council, CMA facilitators meeting.</li> </ul> <p><b>Within industry - collaboration</b></p> <ul style="list-style-type: none"> <li>• Classers were also able to agree on one module averaging system (ie agreed on a single method for reporting on the bale grades attributable to each module of cotton). Previously 3 different module averaging systems were in place, which increased the potential for variability in reporting classing results.</li> <li>• The following industry workshops were held:</li> </ul> |

| Project      | Evidence of linkages created   |
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|              | <ul style="list-style-type: none"> <li>○ With a ginning focus, December 2005, February 2006 and November 2006.</li> <li>○ With a branding focus, October 2004, July 2005.</li> <li>○ With a focus on BMP adoption, June 2006.</li> <li>○ Final reporting workshop, May 2007.</li> </ul> <p><b>Technical input - content</b></p> <ul style="list-style-type: none"> <li>● Incorporate the draft fibre quality BMPs developed by the Project into Fibrepak. On-going liaison with CSIRO to ensure that a comprehensive and co-ordinated package of best management practices for fibre quality is developed.</li> <li>● Wool pathways steering committee involvement.</li> <li>● The project also participated in the various EMS Pathways workshops sponsored by the Department, thereby contributing to the discussion and debate on EMS in agriculture in Australia: March 2005; - March 2006; - February 2007.</li> </ul>  |
| <b>Dairy</b> | <p><b>Through workshop/summit/discussion group participation</b></p> <ul style="list-style-type: none"> <li>● DairySAT service provider facilitator training workshops attended by representatives from state extension agencies, regional NRM bodies, and service providers such as Elders, farm consultancies, milk processors, landcare networks and the National Centre for Dairy Education Australia (NCDEA).</li> <li>● DairySAT .summits held regularly in regions to enable facilitators and stakeholders to share ideas and plan on going delivery programs (useful mechanism for collecting DairySAT case study material).</li> <li>● WestVic NRM Dairy Summit – regular meetings - includes DPI Vic, Landcare, Catchment Management Authorities, Milk Companies, Australian Dairy Farmers, Regional Dairy Programs, Victorian Farmers Federation, Environment Protection Authority, Shire Environment Officers, Dairy Australia, Southern Rural Water.</li> <li>● DIDCO NRM Steering committee - regular meetings - includes DIDCO, Department of Environment and Conservation (NSW); DNR (NSW); DPI (NSW); State Landcare Facilitator (DAFF); State Sustainable Agriculture Facilitator (DAFF); Rural and Related Industries Skills Advisory Committee; NSW Farmers Association; CMA General Managers.</li> <li>● Northern rivers NRM Group (NSW) - regular meetings - includes Norco, NSW DPI, Northern Rivers CMA, Richmond Landcare, NSW Farmers Federation, five dairy farmers ad the DAFF - NSW NRM Facilitator.</li> <li>● 14 Farmer Targets for Change groups currently operating across NSW and include representatives from DPI and CMAs.</li> <li>● 3 S.A. NRM discussion groups (farmer groups with regular meetings).</li> <li>● Gipps Dairy environment and water subcommittee meets intermittently and includes members from the GippsDairy Board, the GippsDairy Executive Officer and the GippsDairy DfT Coordinator.</li> <li>● Gippsland EMS reference group - driven by the West Gippsland</li> </ul> |

| Project | Evidence of linkages created  |
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|         | <p>CMA (WGCMA) - includes WGCMA, Monash Uni, DPI Vic, GippsLandcare, EPA, Enviromeat and GippsDairy.</p> <ul style="list-style-type: none"> <li>• Queensland Dairy NRM sub committee includes Subtropical Dairy and Queensland Dairyfarmers Organisation. The Subtropical DfT Coordinator also keeps key industry reps, service providers and NRM stakeholders and organisations informed through summaries of NRM activities.</li> <li>• Tasmanian NRM Action Group - meets about 3 times/ year - looks at implementation of the Dairy Industry Strategic Plan in Tasmania and the NRM actions and opportunities – includes farmer groups, (DairyTas and Tasmanian Farmers and Graziers Association (TFGA), Milk companies (Fonterra, Cadbury Schweppes), Agribusiness and fertiliser industry (Impact Fertiliser, Serve-Ag, Roberts), Government (DPIW and TIAR), farmers, NRM organisations (NRM North, Cradle Coast NRM, Regional Landcare Coordinator).</li> <li>• Specific DairySAT meetings/training activities for 2006/07 financial year included: WestVic Dairy Summits March &amp; June 06, included representatives from DPI, VFF Pathways project, Warrnambool Cheese &amp; Butter, Murray Goulburn, Fonterra, Heytesbury Landcare Action Group, Corangamite CMA, Glenelg Hopkins CMA. DairyTAS Summit May 06 included representatives from: Cradle Coast NRM, National Foods, DairyTas, FarmSAT Project, Tasmanian Quality Assurance, Tasmanian Dairy Industry Association, Cadbury Schweppes, Department of Primary Industries and Water, TIAR, Tasman Farms, Fonterra. GippsDairy Summit June 06 included representatives from: GippsLandcare, West Gippsland CMA, Burra Food, NRM consultants, National Centre for Dairy Education Australia (NCDEA), Bass Coast Landcare Network, VFF Pathways project. United Dairyfarmers of Victoria DairySAT Ambassador Training Session . April 2007. Mt Lyall Landcare Group Aug 06. Murray Dairy Summit July 06 included representatives from: DPI Effluent team, NCDEA, VFF Pathways project, NRM agencies.</li> </ul> <p><b>Collaborative/ working partners</b></p> <ul style="list-style-type: none"> <li>• Collaborative pilots industry and NRM stakeholder partners.</li> <li>• Regional delivery coordinated and supported by a network of regional Dairying for Tomorrow Coordinators.</li> <li>• Strong communication network has emerged built through regular information exchange workshops, regional DfT coordinator workshops and monthly teleconferences the network has enabled the sharing of ideas, information products and success stories.</li> <li>• Each region has established its own regional NRM network, made up of project and DairySAT facilitators, milk company field officers, interested farmers, landcare coordinators, regional NRM agency staff, EPA representatives, state extension agency staff, service providers and farm consultants. Some of the networks are linked into more formal structures such as industry regional NRM committees and regional project steering committees, others are more informal.</li> <li>• State organisations and agencies have been involved in the initial</li> </ul> |

| Project | Evidence of linkages created   |
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|         | <p>design of projects and are often integral to their delivery, either as facilitators or as technical experts. In NSW the Department of Primary Industries is responsible for coordinating and delivering .Farmer Targets for Change.</p> <p><b>Stakeholder input/consultation</b></p> <ul style="list-style-type: none"> <li>• Stakeholders consulted and engaged in .DfT- On the Ground pilot projects included: All Regional Dairy Programs (RDPs) (8); Dairy Companies in all regions (12); All Catchment Management Authorities/NRM agencies with dairying in their region 7 in Victoria, 3 in Tasmania, 8 in NSW, 4 in Queensland, 2 in WA, 3 in SA; generally all active Landcare groups involving dairy farmers; All state Departments of Primary Industries or Agriculture ;Tertiary Institutions . SA, NSW and Vic TAFE colleges, Tasmanian Institute of Agricultural Research (TIAR), National Centre for Dairy Education Australia (NCDEA), and University of Melbourne; Water Authorities (5); Local Government (6); State dairy farmer organisations in all states (6); Consultants and/or facilitators in each RDP (9); Agricultural Service Providers, Fertiliser Industry reps (6).</li> </ul> <p><b>Milk company engagement with DairySAT</b></p> <ul style="list-style-type: none"> <li>• Murray Goulburn . 20 suppliers engaged in Tarra DairySAT group . on going, DairySAT to be integrated into supplier intra-net management information system (<a href="mailto:MGF@RM">MGF@RM</a>).</li> <li>• Fonterra . suppliers engaged in Agnes Catchment DairySAT groups . on going.</li> <li>• Burra Foods . supplier survey and review of company food safety/milk quality audit material for possible integration of DairySAT . on going.</li> <li>• Warrnambool Cheese &amp; Butter represented on DairySAT Project Steering Committee, attendance at DairySAT Summit meetings with WestVic Dairy. Delivering DairySAT to suppliers on request.</li> <li>• Dairyfarmers Ltd. represented on the DairySAT Project Steering Committee.</li> <li>• Attendance at Subtropical Dairy DairySAT meetings.</li> <li>• The percentage of milk companies actively involved in promoting DfT tools and processes is estimated at 70%.</li> </ul> <p><b>Cash funding leveraged</b></p> <ul style="list-style-type: none"> <li>• Regional NRM agencies/CMA.s - \$500,000 plus significant in kind support, mainly for implementation works.</li> <li>• Contributions via landcare programs and direct incentive funding to farmers as part of normal CMA/Regional agency NRM programs e.g. Rivercare, sustainable agriculture, dryland salinity, biodiversity enhancement programs and CMA tender programs, has not been captured.</li> <li>• Regional Development Programs for establishment of pilots and implementation works \$450,000 plus substantial in kind support.</li> <li>• National Landcare Programme through Envirofund for implementation works \$200,000 to date plus farmer contributions averaged across the eight Dairy Regions exceeded 50% of project</li> </ul> |

| Project             | Evidence of linkages created   |
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|                     | <p>costs and can be estimated at \$1.2 million.</p> <ul style="list-style-type: none"> <li>• Does not include farmer time spent undertaking DairySAT and action planning, meetings, field days, focus farm activities etc.</li> <li>• Regional DfT coordinators have leveraged additional federal govt or regional NRM agency funding for a further 400 farmers to complete DairySAT over the next twelve months.</li> </ul>   |
| <b>Horticulture</b> | <p><b>Input linkages</b></p> <ul style="list-style-type: none"> <li>• Industry Leadership Group (ILG) appointed by HAL and HAC, members included leading growers and independent chairman</li> <li>• Technical Steering Committee (TSC) - experienced hands-on advisers and program managers, and well aware of challenges/potential pitfalls in an environmental assurance program.</li> </ul> <p><b>Linkages through integrated content</b></p> <ul style="list-style-type: none"> <li>• Guidelines and Environmental Code developed to integrate as much as possible with other systems (both quality assurance and environmental) and as result strong links have been built with Freshcare and Enviroveg, growers have used the guidelines to assist them gain EurepGAP certification.</li> <li>• A number of grower groups tested the Guidelines against existing QA schemes.</li> <li>• Sections of the guidelines have been incorporated into materials used to train over 70 vegetable producers in EurepGAP.</li> <li>• The VFF, TFGA and QFF Pathways to Industry EMS projects expressed interest in integrating the guidelines into their toolkits. – also links with Wine.</li> </ul> <p><b>Others using content</b></p> <ul style="list-style-type: none"> <li>• The Best Practice for Sustainable Land Use in the Northern Territory project, run by Northern Territory Horticultural Association and Northern Territory Agricultural Association, is using guidelines when working with horticulturalists</li> </ul> <p><b>Links within Horticulture Australia</b></p> <ul style="list-style-type: none"> <li>• Horticulture for Tomorrow is managed by the HAL Project Manager – Environment, which ensures integration with other industry programs eg. Horticulture NRM Initiative supported by the National Landcare Program Sustainable Industries Initiative; the Land and Water Australia Healthy Soils for Sustainable Farms program and Managing Climate Variability program; and commodity specific projects.</li> <li>• A stakeholder program to create linkages with HAL ‘sub’ industry bodies to reach growers, encourage two-way communication to capture industry feedback – developed as part of comms strategy;</li> <li>• Industry Summit held a day prior to the HAL Forums to maximise industry leadership attendance. Over 100 registrations were taken prior to the date of the Summit, with attendees including State Agencies, consultants, quality assurance experts, environmental groups, universities, Coles, and industry representatives.</li> </ul> <p><b>NGO linkages</b></p> <ul style="list-style-type: none"> <li>• Engaged through a formal strategy. World Wildlife Fund (WWF) and</li> </ul> |

| Project               | Evidence of linkages created   |
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|                       | <p>the Australian Conservation Foundation (ACF) contacted, sent information on the program, draft guidelines and invited to provide comment. Both groups responded and indicated their overall support for the program and comments on the guidelines. also highlighted interest in maintaining relationships with HAL and the horticulture industry in the future.</p> <ul style="list-style-type: none"> <li>• Horticulture for Tomorrow has allowed horticulture to be more engaged with the environmental project managers within other agricultural industries, and especially enhanced collaboration with other research development corporations (RDCs).</li> </ul>   |
| <p><b>Pork</b></p>    | <p><b>Regulators</b></p> <ul style="list-style-type: none"> <li>• APL has developed relationships with relevant State Government bodies through the development and promotion of the National Guidelines. These channels have been strengthened in some states through the State Government officers participating, or active overseeing, the ESP project.</li> <li>• Linkages into regulatory organisation and key contracts developed with DPI&amp;F regulatory and research arms Qld; Department of Agriculture and Food WA; NSW DPI and DEC; SA EPA and Rural Solutions; Vic EPA.</li> </ul> <p><b>National coordination</b></p> <ul style="list-style-type: none"> <li>• Formal State Coordinator ESP extension agreements have been developed with the state government bodies in Qld, WA, NSW and SA. The states have also formally adopted the National Guidelines, to varying degrees, as the key reference document for development applications or setting licence conditions.</li> </ul> <p><b>Within industry fit/collaboration</b></p> <ul style="list-style-type: none"> <li>• APIQ Auditors &amp; Facilitators - The APIQ program generally relies on externally facilitated HACCP based risk assessment and system development. APL has now trained most of the APIQ auditors and has assessor agreements with these auditors as well as standards for training etc.</li> <li>• Initially APL's ESP project was established as a stand alone program with a stand alone document – an EMP – that was to be developed via producers after attending a training program. The EMP was reviewed by the State Coordinators or other APL approved facilitators.</li> <li>• APL will be modifying APIQ auditor requirements in 2007/2008 to include environmental training and independent verification of auditor performance. Formal EnviroCheck assessor agreements already exist with the State Coordinators and will be extended to participating APIQ auditors.</li> </ul> |
| <p><b>Seafood</b></p> | <p><b>Industry support</b></p> <ul style="list-style-type: none"> <li>• 3 industry Summits were held to maximise industry leadership and bring together stakeholders involved in EMS development and implementation, enabling industry champions and others sharing lessons learnt in developing and implementing an EMS, brought together key people involved in Seafood industry development including producers from all States and Territories, government agencies, NGOs, researchers, investors, certifying bodies,</li> </ul>   |

| Project                    | Evidence of linkages created   |
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|                            | <p>standards agencies etc., formed the core of a Seafood EMS network, provided a mechanism for project collaboration, high level of interest at the summits and for communicating the advantages of EMS uptake at the regional and national level.</p> <ul style="list-style-type: none"> <li>• Participation on the Steering Committee for the new EMS qualifications and units that were endorsed by Agri-Food Industry Skills Council and included in the Seafood Industry Training Package. The endorsement was for two additional qualifications to support specialized roles in EMS within the seafood industry.</li> <li>• Communicated with stakeholders and assisted in the resolution of issues that arose during the development and adoption of Seafood EMS.</li> </ul> <p><b>Joint delivery</b></p> <ul style="list-style-type: none"> <li>• Coordinated the development and delivery of training programs for Seafood EMS in conjunction with industry, Seafood Training Australia and Training Providers.</li> <li>• Five regional workshops were delivered and facilitated by industry champions.</li> <li>• The Coordinator helped link industry to existing initiatives and programs.</li> <li>• Created and expanded SSA Network for “face to face” communication with people who are working with grass roots industry on developing and implementing Seafood EMS, with participant’s further disseminating information and knowledge.</li> <li>• Facilitated and encouraged communication between and within Seafood EMS groups and other industries embarking on an EMS. The Seafood EMS Mentoring program.</li> </ul> |
| <p><b>CANE GROWERS</b></p> | <p><b>Program alignment</b></p> <ul style="list-style-type: none"> <li>• Further linkages from the Sugarcane FMS Project were made with the Rural Water Use Efficiency Program (a joint CANEGROWERS-Queensland Government Project which CANEGROWERS operates in partnership with BSES Ltd).</li> <li>• At the beginning of the Sugarcane FMS Project, the sugar industry already had many support tools and support services for adoption of good farm practices, many of these were developed on a regional basis and by different sugar industry organisations. One of the roles of the Sugarcane FMS Project was to incorporate these support tools and support services within a whole of industry strategy, but to also continue adoption of the individual support tools and support services.</li> </ul> <p><b>Industry consultation</b></p> <ul style="list-style-type: none"> <li>• Coordinated a number of regional workshops during October 2005 to February 2006, in the format of regional demonstrations and consultation, led to the Review held January and February 2006.</li> <li>• Industry Workshop in October 2006, attended by 70 participants from every sugar industry region and every sugar industry organisation, outcomes contributed to the development of the CEOs Strategy for Sugarcane Farm Management Systems.</li> </ul>  |

| Project | Evidence of linkages created   |
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|         | <ul style="list-style-type: none"> <li>• Regional consultations were held during March to May 2007, and are expected to continue after conclusion of the DAFF funded Sugarcane FMS Project.</li> </ul> <p><b>Industry agreement</b></p> <ul style="list-style-type: none"> <li>• The Sugar Industry CEOs FMS Committee have agreed to develop a set of principles for an agreed whole of industry farm management systems strategy, are expected to finalised in May 2007. Support for this approach of a whole of industry umbrella program/ strategy was obtained during the Industry Forum in October 2006 and regional discussions held in March to May 2007.</li> </ul>   |
| Sugar   | <p><b>Content collaboration</b></p> <ul style="list-style-type: none"> <li>• Sugar FMS Tools has hyperlinks to all appropriate sites (eg., CANEGROWERS, BSES Ltd, Queensland Department of Natural Resources) and it provides a database of the service providers and industry organisations who can assist farmers improve their management practices.</li> <li>• Indicator development in collaboration with QLD Department of Natural Resources who were developing 'eco-efficiency' indicators that could be used by landholders to assess risks to the environment. The Land Managers Monitoring Guide is still being completed but the questions in the FMS Check are consistent with the draft eco-efficiency indicators being developed by QDNR. Other environmental risk information was obtained from the ABARE NRM survey of farm family households and from the ANZECC water quality threshold value guidelines for tropical Australian rivers.</li> <li>• QLD legislation requires farmers who wish to trade water to complete a Land and Water Management Plan (LWMP). SRDC funded a separate subprogram for AGRECON to work with district CANEGROWERS officers to develop an electronic LWMP including farm mapping capability (FMS007, Land and Water Management Plan drafting tools for the FMS framework).</li> <li>• SRDC funded AGRECON to develop farm occupational health and safety guidelines in collaboration with Burdekin and Bundaberg District CANEGROWERS (FMS008 Farm health and safety tools for the Sugar FMS framework). Resources from the University of Sydney Australian Centre for Agricultural Health &amp; Safety project, Managing farm safety in the sugar industry field sector, were used in the development of farm hazard risk assessment in the Sugar FMS Tools program.</li> <li>• Within the sugar industry, BSES Ltd was involved in helping AGRECON shape the 'FMS Check' risk assessment questionnaire to make it as useful as possible for growers. BSES Ltd extension advisors across Queensland have started using the 'FMS Check' questionnaire as the introduction to the Farm Productivity Assessment process with individual growers.</li> </ul> <p><b>International positioning</b></p> <ul style="list-style-type: none"> <li>• SRDC-funded travel to WWF Better Sugar Dialogue and Sth African sugar EMS for Mr Robert Quirk, NSW farmer and member of FMS Consultative Committee to attend the inaugural Better Sugar Initiative meeting hosted by World Wide Fund for Nature and Tate</li> </ul> |

| Project                    | Evidence of linkages created   |
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|                            | <p>and Lyle Sugar Ltd in London, and visit Sth Africa sugarcane EMS. Mr Quirk is on the steering committee of this global alliance to improve environmental and social conditions for sugarcane production across the world. (FMS006).</p>   |
| <p><b>Chicken meat</b></p> | <p><b>Regulators</b></p> <ul style="list-style-type: none"> <li>• A number of linkages have been created between regulators on a state and local level, government representatives (EPA), and growers, that have improved relationships between these stakeholders. This has been imperative for the successful adoption of the EMS program on a national scale. Linkages were enhanced between a number of government and industry bodies during this project such as: Department of Agriculture, Fisheries and Forestry (DAFF); Rural Industries Research and Development Corporation (RIRDC) – Chicken Meat Program; Australian Poultry Cooperative Research Centre (CRC); Australian Chicken Growers Council (ACGC); Australian Chicken Meat Federation (ACMF); Local Councils or State EPA's; State Meat Chicken Organisations; Processors; Growers.</li> <li>• Regulators were specifically invited to each workshop when the training package was launched to raise awareness and contribute early in development.</li> <li>• The national delivery of the EMS training package workshops provided another opportunity for regulators to endorse the content of the training package and provide feedback on the effectiveness of the content. It also provided an occasion for growers to meet their local regulatory representative and for both sides to express their opinions and comments about how EMS would be applied in their region.</li> </ul> <p><b>Within industry</b></p> <ul style="list-style-type: none"> <li>• Train-the-Trainer workshops were used as an opportunity for growers and processors from all around their own state to communicate about issues they have and how they deal with them. Facilitators and consultants who had experience in the meat chicken industry ran the workshops. They were able to provide advice and knowledge about the national EMS standard with respect to individual states regulatory requirements.</li> <li>• Content materials have evolved as a result of the continued involvement of growers, processors and regulators.</li> </ul> <p><b>National coordination</b></p> <ul style="list-style-type: none"> <li>• State Committees set up as part of the EMS Pathways Project were successful in a few states. Victoria's state committee was already quite established and were able to provide a communication link between the states and the Australian Chicken Growers Council. Similarly, the Western Australian committee was able to keep the ball rolling on a number of the EMS workshops and training courses. This has been useful for disseminating information from a national level to states, and then from the state bodies to the growers.</li> </ul> |
| <p><b>Eggs</b></p>         | <p><b>Within industry – across supply chain</b></p> <ul style="list-style-type: none"> <li>• Increased linkages forged between all areas of the egg production supply chain. The majority of the industry members are egg</li> </ul>   |

| Project            | Evidence of linkages created   |
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|                    | <p>producers (caged, free range and barn laid), but there are also a number of other production systems in the supply chain, including pullet rearers, hatcheries, egg grading floors and egg product manufacturers. Representatives from all these industry sectors have been involved in the EMS pathways project by: Attending the Environmental Principles for the Egg Industry training courses; Attending the ECA EMS update training days; Attending the National Regulatory Review workshop; Supplying feedback on the various drafts of the Environmental Guidelines for the Australian Egg Industry.</p> <p><b>Regulators</b></p> <ul style="list-style-type: none"> <li>• Regulatory bodies (both state and local) and research bodies provided input into the National Regulatory Review and the Environmental Guidelines for the Egg Industry in Australia.</li> <li>• Several key state and local government representatives, along with key industry representatives attended and actively participated in the National Regulatory Review Workshop to develop new and enhance existing linkages. It is recognised however, that there will need to be an ongoing commitment to this, as the regulatory environment changes and new personnel become involved in the regulatory processes.</li> </ul> <p><b>Cross industry lesson sharing</b></p> <ul style="list-style-type: none"> <li>• The Egg Industry has particularly drawn on the experiences of the other intensive industries, including chicken meat and pork, which both operate under a regulated environmental management environment.</li> </ul>  |
| <p><b>Rice</b></p> | <ul style="list-style-type: none"> <li>• Methane Trial will inform the research strategy, as further research is required to underpin the Greenhouse pathway to effectively mitigate emissions on farm. potential partnerships with the Graeme Centre and the Australian Greenhouse office are being discussed for research into methane/nitrous oxide relationships.</li> </ul> <p><b>Endorsement of content and system</b></p> <ul style="list-style-type: none"> <li>• Linkages with 26 key stakeholders in the development and the implementation of the program. Every element of ECP, including delivery mechanism, content and recognition has collective approval by all irrigation bodies within the rice growing regions, government agencies (i.e. those managing natural resources, wildlife, and agricultural extension), rice systems research, catchment management authorities, non government organisations, local green groups, RGA staff and most importantly growers.</li> <li>• Other stakeholders include: CSIRO Land &amp; Water , CSIRO Sustainable Ecosystems , NSW Tafe o University of New England – Ag and Law section , University of Canberra , Charles Sturt University , Dept of Natural Resources &amp; Environment (Vic) , EPA &amp; WorkSafe (Vic), Goulbourn Murray Valley Water (Vic), Australian Conservation Foundation, World Wide Fund for Nature.</li> <li>• Over the period of funding, 102 program meetings been held with a broad range of stakeholders to develop the content.</li> <li>• 64 partner ECP meetings have been held to review ECP progress, reflect outcomes and further build relationships that are based on</li> </ul> |

| Project | Evidence of linkages created  |
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|         | <p>confidence that the ECP assists in delivering their programs on ground. The meetings also provided an opportunity for feedback to more effectively work together.</p> <p><b>Linkage process</b></p> <ul style="list-style-type: none"> <li>• Clear communication has been achieved as a result of increased staff resources such as more consistent reporting in the form a 'partner' newsletter, a formalised partnership meeting held annually to inform regional organisations of progress and outcomes being achieved.</li> <li>• A formal partnership management plan has been developed, provides details on the history of the relationship, the appropriate contacts and the linkages between the stakeholder and the Environmental Champions Program.</li> </ul> <p><b>Outcomes of linkages</b></p> <ul style="list-style-type: none"> <li>• Regional Coordinators are based in each irrigation company's office, to build relationship and understanding of Catchment Management Authorities and Irrigation Company LWMPs (in kind contribution?).</li> <li>• Other examples of outcomes achieved in this area, is the industries rice research &amp; development committee, facilitated through RGA and RIRDC have included the support of the ECP in the recently launched five year strategic plan. This demonstrates the research arm of the industry valuing the ECP as a mechanism to deliver research on ground.</li> <li>• CSIRO Sustainable Ecosystems have contributed \$400,000 to research biodiversity until 2009.</li> </ul> |
| VFF     | <ul style="list-style-type: none"> <li>• VFF instigated an 'industry-led' and 'industry-owned' approach to EMS in Victoria and successfully arranged for all of the key organisations, such as industry, government, CMAs and Landcare, to work co-operatively together.</li> <li>• Well-established partnership with DPI, DSE, CMAs, Landcare, industry groups and co-operation with Victorian rural municipalities via the Municipal Association of Victoria (MAV).</li> <li>• The VFF embraces all industries and encourages farmers across all industries to participate in EMS training. To date, the main industries in Victoria to demonstrate interest in EMS are: beef, sheep, dairy, grains, chicken meat, eggs, horticulture, wine and organic agriculture.</li> <li>• The UDV (United Dairyfarmers of Victoria – VFF Dairy Group) has been involved in the development of DairySAT.</li> <li>• The VFF Egg Group has developed a specific egg industry section to be incorporated into the EBMP workbook which they will use and promote.</li> <li>• The VFF Chickenmeat Group has assisted the development of, and promoted the National Chickenmeat EMS training program.</li> <li>• See also information about EMS Professional Development training under Item 3, above.</li> <li>• EBMP (Environmental Best Management Practices), which covers broadacre industries, has already involved over 1,000 farmers,</li> </ul>  |

| Project | Evidence of linkages created  |
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|         | <p>mainly in southern Victoria. Of the approximate 2,200 Victorian farmers who have now done at least EMS Stage 2, it is estimated that they have the following industry backgrounds: Beef, sheep and/or grain – 60%; Dairy – 25%; Horticulture – 5%; Chicken meat – 3%; Other – 7%.</p> <p><b>Leveraging</b></p> <ul style="list-style-type: none"> <li>• The Victorian Government co-invested about \$1.5m in the project by the provision of regional EMS Pathways Officers who were jointly funded by the Departments of Primary Industry, Sustainability and Environment and the VFF EMS project.</li> <li>• EMS Pathways Officers, employed by DPI were appointed and trained to co-ordinate EMS extension and technical support in all 10 Catchment Management Authority regions in Victoria. These staff also arranged appropriate training of other potential EMS extension personnel in their respective regions, such as other departmental, CMA and Landcare people. This has been a key strategy to embed the understanding and application of EMS widely through many ongoing, relevant projects with landholders.</li> <li>• Victorian Government co-investment is \$720,000 pa for 2006/06 and 2006/07. Vic Govt now has an associated project, Streamlined Property Management Systems for farmers – \$4.9m for 4 years. The Victorian Government will continue investment into the EMS Pathways project in 2007/08.</li> <li>• 12 formally documented collaborative arrangements developed.</li> </ul>  |
| Wine    | <p><b>Engagement/consultation</b></p> <ul style="list-style-type: none"> <li>• Regional Coordinators were tasked with directly contacting state and regional wine industry associations and NRM boards and participating in relevant forums.</li> <li>• a means of consultation, 10 AWIS Regional Committees were established with representatives from wine companies, wine industry associations and NRM boards invited to participate. Alternatively, regional industry associations and/or viticultural technical committees were engaged in other regions and CMAs/NRM Boards have been approached separately.</li> </ul> <p><b>Industry fit and endorsement</b></p> <ul style="list-style-type: none"> <li>• AWIS is built on a linkage with the existing system of agrochemical spray diaries in the Australian wine industry.</li> <li>• The national NRM Coordinator has addressed the annual Australian Wine Research Institute Agrochemical forum every year since 2005. This forum developed and endorsed the national spray diary template, and subsequently endorsed the inclusion of the AWIS survey in the same. The agrochemical forums comprise senior viticultural staff from wine companies across Australia and are an important stakeholder group for AWIS communications.</li> </ul> <p><b>Collaborative work</b></p> <ul style="list-style-type: none"> <li>• Winemakers' Federation partnered with TQA and TFGA to develop a single self assessment checklist for use by Tasmanian farmers.</li> <li>• Through AWIS, a Memorandum of Understanding between the Riverina Winemakers' Association and the Wine Grapes Marketing</li> </ul> |

| Project              | Evidence of linkages created  |
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|                      | <p>Board was established, formalising cooperation on the distribution and collation of AWIS spray diary insert surveys and on developing a united course of action to address the outcomes of the survey, including the provision of grower training and the inclusion of results in marketing material. The Riverina is responsible for 60% of NSW grape production, and some 16% of the national crush.</p> <ul style="list-style-type: none"> <li>• 7 regional wine industry associations were also part of the broader roll out, and have varying roles ranging from advocacy, through to providing the administrative focus for survey distribution, collection, collation and reporting.</li> </ul> <p><b>International positioning</b></p> <ul style="list-style-type: none"> <li>• AWIS is aligned with the International Federation of Wine and Spirits (FIVS) Global Wine Sector Environmental Sustainability Principles, which can be attributed to Australia's involvement in the development of these principles. The Australian industry is the first to demonstrate this alignment, as presented at the 2007 FIVS Annual Conference and the International Organisation of Vine and Wine's 2007 World Congress.</li> <li>• 18 formally documented collaborative arrangements developed.</li> </ul>  |
| <p><b>Grains</b></p> | <p><b>Data requests/ data sharing arrangements</b></p> <ul style="list-style-type: none"> <li>• QLD DPI requested assessment of nutrient runoff from grain farms which may flow to the Barrier reef - possible to assess the potential nutrient run off as at 2001 using fertiliser data and locations.</li> <li>• Requests for yield data from the Mallee Sustainable Farming systems group, the Liebe group in WA and the NSW DPI for their areas have been able to be extracted from the benchmarking data.</li> <li>• MLA requested basic data on cattle numbers at shire and regional levels.</li> <li>• ICAN Consultants – national data at Agro-ecological zone level of farmland, crop area, tillage system, yields, crop types.</li> <li>• Grain Research and Development Corporation - has undertaken to support this project and discussions continue as to how the information will be best utilised by them, GRDC see value in using data for evaluation and strategic planning of investments.</li> <li>• Australian Bureau of Statistics - still the best source of top level data which the database will need to validate the base data that it is gathering. The 2006 census data will not be available until late in 2007/2008.</li> <li>• ABARE - met with ABARE and discussed data exchange, had input to questions for ABARE's 2007 National Survey.</li> <li>• Australian Greenhouse Office - A contract is now in place to utilise the farm practice database in conjunction with the AGO's developed tool to estimate greenhouse gas emissions from farms. who want to test the latest NCAS greenhouse accounting and emissions estimation model with the Grains Industry using the database.</li> <li>• BRS - National Agricultural Monitoring Service (NAMS) - met with NAMS twice to discuss data sharing.</li> <li>• BRS - Signposts to Agriculture - met several times, interested in using the projects amalgamated data to promote agricultures profile,</li> </ul> |

| Project     | Evidence of linkages created  |
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|             | <p>and validate each other data.</p> <ul style="list-style-type: none"> <li>• The bulk handling industry (e.g. ABB Grain and GrainsCorp, Australian Grain Accumulators and the National Grower Register) wish to test the system for traceability uses.</li> </ul> <p><b>Presentations and joint promotions gained</b></p> <ul style="list-style-type: none"> <li>• Presentations to Namoi CMA in New South Wales; General Managers of the 8 South Australian NRM Boards and M&amp;E managers of those SA bodies - all the bodies are keen to start promoting and using the system in their areas.</li> <li>• National Sustainable Resource Use Facilitators - Database presented to all state facilitators in January 2007, team undertook to promote to NRM's.</li> <li>• Landcare, Elders - Elders have committed \$1.5 million to Landcare projects over the next 5 years and have agreed support to this project, offering cash and in-kind support in promoting the Project, the use of the data recording and reporting service via their national agronomist network.</li> <li>• Agforce QLD - enthusiastic about promotion and collaboration in Queensland.</li> <li>• SAFF Grains – met, they are to send out the form to their members.</li> <li>• Partners in Grain - shown interest in the project and will be another source of encouragement for farmers to use the system.</li> <li>• Grain Growers Association - has approx. 14,000 members in the three eastern states of Australia, been supportive and promoted the system to their members, and put own survey questions on the form, emailed the dataform to all on their email list, and data is coming in from their members on a constant basis. This has been a very productive collaboration.</li> <li>• Farming Systems Groups - met with most of these groups and sought support. The best responses have been from the Riverine Plains Farming Group and Central West Farming Systems in NSW.</li> <li>• Presentations have also been made to the Birchip Cropping Group, Victorian No Till Association, Mallee Sustainable Farming Systems, CWCFA, SANTFA, WANTFA, CAAANZ, Grower Group Alliance, WA, Ag Excellence Alliance, SA, PIRSA Rural Solutions, SA. The responses from these groups have been variable.</li> </ul> <p><b>Technical input</b></p> <ul style="list-style-type: none"> <li>• CSIRO Plant industry, Land &amp; Water - CSIRO reviewed and validated the science in paper. Land and Water contributed the soil mapping data.</li> <li>• Cotton Australia/CRDC - Collaborative opportunities discussed with Cotton Industry.</li> <li>• AWI / MLA - Significant time invested and meetings held.</li> </ul> |
| <b>Wool</b> | <p><b>Cross industry collaboration</b></p> <ul style="list-style-type: none"> <li>• The three broadacre industries are intending to reconvene to share experience and lessons and identify if a single environmental stewardship system approach is both feasible and sensible.</li> </ul>  |

| Project         | Evidence of linkages created  |
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|                 | <ul style="list-style-type: none"> <li>• Industry Forum - with Grains and Meat to investigate the synergies and opportunities for close collaboration to minimise duplication of effort and to seek to develop a common 'product'. Wool, grains and meat managers have met virtually fortnightly over the course of the project. From December 2006, meat and wool have worked together most closely.</li> </ul> <p><b>Within industry alignment</b></p> <ul style="list-style-type: none"> <li>• Established strong linkages into AWI's Land Water and Wool program; 'Making more from Sheep', a BMP package for sheep and woolgrowers; and the integrated on- and off-farm 'Eco/organic wool' strategy – both of which will be key delivery vehicles post the Wool Pathways project and AWI's extensive grower group network in each State.</li> </ul> <p><b>Project management</b></p> <ul style="list-style-type: none"> <li>• Steering Committee - met regularly to provide guidance and support, contact was made with various groups and individuals who had experience in the EMS area to harness existing knowledge. Included a representative from the Cotton industry with intricate knowledge of their BMP was a member of this committee along with two farmer representatives involved in a group pursuing an EMS and QA scheme. The committee also had representatives from wool brokers involved in EMS plus a representative from the wool exporting sector.</li> </ul> <p><b>Broader stakeholders</b></p> <ul style="list-style-type: none"> <li>• Also linkages developed with other EMS projects; industry organisations; farmer groups; CMAs and other relevant authorities.</li> <li>• A "Council Chairs" group (involving CCA, SMCA, GCA and Wool Producers) was established and met frequently. SFO's received regular briefings on the project. Some CMAs have been briefed.</li> <li>• The project, through AWI, has also had contact with a large and highly influential overseas apparel retailer who was very supportive of the approach being taken by LandLeader.</li> </ul> |
| <b>Red meat</b> | <p><b>Stakeholder consultation/involvement</b></p> <ul style="list-style-type: none"> <li>• Created linkages with the 55 stakeholders who took part in the 2 hour in-depth interviews.</li> <li>• Created linkages with the agencies/ authors of monitoring tools.</li> </ul> <p><b>Within industry alignment</b></p> <ul style="list-style-type: none"> <li>• Took first step in linking the on-farm monitoring initiative with EDGENetwork courses.</li> <li>• Created linkages between the LPA QA environmental module and the More Beef from Pastures program, the Grazing Land management course, Anna Ridley's SAT program and the AGO's greenhouse gas BMP manual.</li> </ul> <p><b>Cross industry alignment</b></p> <ul style="list-style-type: none"> <li>• Created linkages with the More Beef from Pastures program, the Making More from Sheep program, AWI and the regional groups selected to take part in the development of Landleader.</li> </ul>  |
| <b>Organics</b> | <ul style="list-style-type: none"> <li>• Desktop review provided an opportunity for strategic linkages and</li> </ul>   |

| Project    | Evidence of linkages created  |
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|            | <p>development of relationships with industry sectors, farmer groups, CMAs, and Government agencies. EMS Pathways project managers and conservation groups were engaged in the project through a peer review process, networking and communication.</p>   |
| <b>QFF</b> | <ul style="list-style-type: none"> <li>• Coordinated QFF's FMS Taskforce and development of a five year Implementation Program for FMS.</li> <li>• FMS Framework provides a means of coordinating the efforts of the QFF members, provides a defined role for QFF as an overarching body - to encourage coordination and sharing of info between the FMS programs, assist members access funds and other resources to implement FMS, and develop partnerships with key stakeholders eg government and regional NRM bodies to align policy/resources to assist roll out of industry-led FMS.</li> </ul> <p><b>QFF – industry</b></p> <ul style="list-style-type: none"> <li>• QFF administered the project and coordinated the reporting and invoicing requirements of QDO, NGIQ and Growcom, so providing a single point of contact for the Australian Government as investor.</li> <li>• QFF FMS coordination across industry members expanded to include: Australian Prawn Farmers Association and Flower Association of Queensland Inc.</li> <li>• Linked with the Flower Conference (an industry event) and distributed QFF FMS Fact Sheets to 80 delegates - March 2006.</li> <li>• Assistance provided to Queensland Turf Producers Association (QTPA) - not a QFF member - through the South East Queensland Irrigation Futures program.</li> <li>• Contributed to design, delivery and reporting of a two day Intensive Industries Forum, March 2007, Bundaberg -an opportunity for 40 operational and policy staff from industry, government and regional NRM bodies to meet, share experiences and discuss future directions for sustainable agriculture partnerships at the regional level.</li> </ul> <p><b>QFF – state govt</b></p> <ul style="list-style-type: none"> <li>• Liaised with QDPI&amp;F coordinated Intensive Livestock Environmental Advisory Committee to promote FMS to intensive livestock industries and opportunities available for alignment of legislative requirements and industry-led programs.</li> <li>• Liaised with QDPI&amp;F to assist the MoU Implementation Group until July 2006.</li> </ul> <p><b>QFF – regional NRM bodies</b></p> <ul style="list-style-type: none"> <li>• The QFF and Regional Groups Collective MoU was revised in December 2006 - lists current areas for joint investigation. As part of the MoU, the CEO's of each party met on 20th February 2007 to discuss future directions for NRM and agriculture, including FMS.</li> <li>• Attendance at Regional Groups Collective meetings, Regional NRM Communicators Network meetings and Regional NRM Spatial Imagery/GIS Network meetings to promote collaborative arrangements between industry and regional NRM groups. QFF has encouraged the Regional Groups Collective to establish a</li> </ul> |

| Project     | Evidence of linkages created  |
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|             | <p>network across regional bodies for officers involved in sustainable agriculture/industry liaison and this process is currently in train. A newsletter “Partnerships for Profit and NRM” highlighting partnerships between industry and regional NRM groups was prepared by QFF in December 2005.</p> <ul style="list-style-type: none"> <li>• Prepared and participated in the \$1.4m project “Systematic Approach to Sustainable Agriculture in Queensland” project - promotes linkages across industry and regional NRM groups.</li> <li>• Prepared a draft position paper a joint approach between regional NRM bodies and industry led FMS programs to providing NRM incentives for producers where NRM outcomes have been identified.</li> </ul> <p><b>QDO</b></p> <ul style="list-style-type: none"> <li>• Formal Partnership Agreement between BMRG and QDO was executed on the 4th February 2007 to secure incentive funds for priority issues identified by farmers through the DairySAT that align with BMRG’s regional priorities. Continual and ongoing liaison between QDO and BMRG occurred to determine Dairying Better ‘n Better co-investment opportunities. This included liaison with BMRG as part of their SEO5 project on trialling the use of FMS programs to deliver Market Based Instruments.</li> </ul> <p><b>Growcom</b></p> <ul style="list-style-type: none"> <li>• Growcom employed an FMS officer in the Burnett-Mary region to profile FMS to horticulture producers and customise services provided by members of the Growcom Land and Water team, Bundaberg Fruit and Vegetable Growers, Horticulture Australia Ltd, BMRG and government agency staff for local producers. The FMS officer provided a focal point for establishing collaborative relationships between regional industry and regional NRM staff in support of producers undertaking FMS activities</li> <li>• Liaison between Growcom and BMRG to identify priority NRM issues for fruit and vegetable growers under the Growcom FMS program and determine opportunities for collaboration and value adding. This included liaison with BMRG as part of their SEO5 project on trialling the use of FMS programs to deliver Market Based Instruments.</li> </ul> <p><b>NGIQ</b></p> <ul style="list-style-type: none"> <li>• NGIQ liaison with South East Queensland Catchments (SEQC) to explore partnership opportunities in the Caboolture-Bribie Island area resulting in NGIQ delivery of EcoHort to producers as part of the SEQC Ningi Catchment project and contribution to an integrated area wide management approach for the catchment. This project has extended into a whole of region project (Pumicestone) which will continue to have NGIQ involvement with a greater number of enterprises now within the project parameters. The Nursery Production FMS was linked to the outcomes of the Ningi Catchment NRM Program.</li> <li>• Joint resourcing for field day - SEQC Ningi Catchment project officer and DPI&amp;F officers for EcoHort Recycled Water Sampling.</li> </ul> |
| <b>TFGA</b> | <ul style="list-style-type: none"> <li>• FarmSAT refined based on feedback from producers, DPIW staff, project steering committee members and other stakeholders and</li> </ul>   |

| Project | Evidence of linkages created  |
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|         | <p>mapping against a number of other similar tools, NRM Management Action Targets and environmental assurance systems.</p> <ul style="list-style-type: none"> <li>• Project steering committee, includes representatives from: TFGA; TFGA commodity councils; DairyTAS; Fruit Growers Tasmania; Tasmanian Agricultural Productivity Group; Tasmanian Quality Assured Inc.; Vineyards Association of Tasmania; Department of Primary Industries and Water, and the Tasmanian NRM committees. FarmSAT has become one of the first cross sector projects established by the TFGA and the project and industry has benefited from this collaborative approach.</li> </ul> <p><b>Content references</b></p> <ul style="list-style-type: none"> <li>• FarmSAT focussed on learning from other projects, tools and initiatives with 10 other documents formally reviewed, and Enviroveg, Nature’s Choice and Field to Fork being used as informal references.</li> <li>• FarmSAT. The sections and questions in the FarmSAT checklist were modelled on DairySAT and the initial legislative summaries were also taken from DairySAT. FarmSAT Facilitators attended DairySAT training in Victoria and Tasmania to develop a better understanding of the tool and its delivery. As a consequence of this training FarmSAT facilitators have been involved with the delivery of DairySAT in Tasmania. This relationship is ongoing and involves FarmSAT facilitators promoting both tools and delivering the tool that best suits the particular business.</li> <li>• NRM regions, contacts and priorities brochure (the “best seller” in the FarmSAT toolkit) developed in consultation with the 3 NRM bodies, need identified through producer responses to self assessment tool.</li> <li>• DairySAT was one of the key resources used in the development.</li> <li>• Horticulture for Tomorrow Guidelines for Environmental Assurance for Australian Horticulture have been an important element of the facilitator toolkits, particularly for producers who have implemented environmental assurance systems such as EurepGAP. 40 copies of the document being provided to producers and industry support staff.</li> <li>• Inclusion of the Legislative summaries in FarmSAT.</li> <li>• Through involvement in the FarmSAT project, DPIW have now developed two legislative fact sheets on Weeds and Threatened Species as a pilot for producing more user-friendly legislative information.</li> <li>• Prompted the TFGA to include as part of a new NRM Communication Project funded via the Natural Heritage Trust the development of an Environmental Legislation Guide for Tasmanian Farmers.</li> <li>• Provided with a copy of The Environmental Law Handbook, produced by the Tasmanian Environmental Defender’s Office.</li> <li>• The toolkit FarmSAT promotes linkages with other projects, agencies and individuals that can assist producers with a variety of on farm issues. The toolkit includes; • Over 160 references related</li> </ul> |

| Project | Evidence of linkages created   |
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|         | <p>to the sections in FarmSAT • Directory of Agricultural Consultants • Directory of key DPIW contact areas • Directory of industry groups • Directory of OH&amp;S contacts.</p> <ul style="list-style-type: none"> <li>• Occupational Health and Safety information and contacts included in the FarmSAT toolkit, 3 copies of the “Rural Workplace Human Resource Management Guide” and 39 copies of “Take Control of Safety on your Farm – a Farm Safety Management Tool for Farmers” handed out.</li> <li>• Developed with reference to both EurepGAP and the draft Environment module of the Freshcare Code of Practice (released August 2006).</li> <li>• Strong alignment between FarmSAT and Environment module of the Freshcare Code of Practice, likely that FarmSAT will be used in the Tasmanian delivery of the Environment module.</li> </ul> <p><b>Working relationships</b></p> <ul style="list-style-type: none"> <li>• Development and trialling of FarmSAT overseen by the TFGA in collaboration with DairyTAS, Fruit Growers Tasmania, Tasmanian Agricultural Productivity Group, Tasmanian Quality Assured Inc, Vineyards Association of Tasmania, Department of Primary Industries and Water and the three NRM Bodies.</li> <li>• FarmSAT facilitators promoted NRM projects to producers. Collaboration has assisted with rapid filling of the first 3 rounds of Whole Farm Planning in the north of the state. The Isis Valley Landcare group application for Whole Farm Planning was developed by a FarmSAT facilitator, and brought an additional 11,000 ha to the NRM North project.</li> <li>• Facilitators gathered information on the critical issues for each property and informed the whole farm planning service provider - provides opportunity to tailor delivery to issues.</li> <li>• Strong linkages developed with NRM South’s Property Management Planning project, FarmSAT used as template for development of the training materials, FarmSAT used prior to, during and after workshop delivery to gauge progress.</li> <li>• Development of a Tasmanian Property Management System (PMS) Framework commenced in mid 2006, in partnership between TFGA, the 3 NRM Committees and State Government with support from Australian Government, currently at final draft stage and subject of negotiations between these stakeholders.</li> <li>• FarmSAT was represented on the “Think Tank” group that provided input into the development of the framework to date. The FarmSAT tool and process has been clearly identified as an introductory or Level 1 tool providing an entrée for primary producers into PMS. the long term sustainability and uptake of FarmSAT is largely dependent on its relationship and recognition as part of PMS.</li> <li>• FarmSAT is effectively representing the Australian Wine Industry Stewardship program in Tasmania. Joint visits to five vineyards across northern and southern Tasmania. AWIS national indicator questions have been mapped against FarmSAT - good overlap; joint FarmSAT – AWIS presentation at the Vineyards Association of</li> </ul> |

| Project                 | Evidence of linkages created  |
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|                         | <p>Tasmania AGM in July 06, interest in FarmSAT to create an environmental component of Code of Conduct for Tasmanian wine industry.</p> <ul style="list-style-type: none"> <li>• Trialled the Tamar NRM ROOFS (Regional Outcomes for On-farm Sustainability database and provided feedback eg. increasing producer testing of the tool and including a keyword search engine. ROOFS refers to FarmSAT as an option for completing an initial review of farm sustainability issues.</li> <li>• The FarmSAT facilitators have promoted to Cradle Coast NRM Committee; Prograze; Strategic Focus; TFGA Commodity Councils; TFGA Weeds Standing Committee; Pyrethrum Growers Committee; Tasmanian Women in Agriculture; Local Landcare Groups and numerous field days.</li> </ul>  |
| <p><b>WAFarmers</b></p> | <ul style="list-style-type: none"> <li>• A Steering Committee was formed to oversee management and make key decisions, comprised of key industry officers and stakeholders in WA.</li> </ul> <p><b>Collaborative work</b></p> <ul style="list-style-type: none"> <li>• Co-presentation of workshops with DAFWA and Curtin University through the Muresk Institute.</li> <li>• Memorandum of Understanding (MOU) agreed between WAFarmers and Department of Agriculture and Food in Western Australia (DAFWA). The State-based framework developed by DAFWA, Farming for the Future, is presented online and includes their self-assessment tool and information on sustainability. Framework was launched as a component of DAFWA's Farming for the Future (FFF) initiative in 2005. This initiative was developed through the Minister for Agriculture and Food's Sustainable Agricultural Practices Working Group, which is comprised of various industry representatives including WAFarmers.</li> <li>• DAFWA has co-presented all of the Pathways Project workshops in WA. This has resulted in a higher profile for the EMS framework and the SATs developed by both WAFarmers and FFF.</li> <li>• Tool development included input from the Steering Committee, DAFWA and the workshops, plus assessment of EMS Pilots tool sets.</li> <li>• CBH Group, a large grower-owned co-operative primarily involved in storage, handling and market grain, was contacted with regard to their Better Farm IQ program (a Quality Assurance program being strongly promoted to WA grain growers). It was agreed that the Better Farm IQ program would be discussed at the Pathways Project workshops and should there be particular interest in this subject in specific regions, a representative from CBH would directly participate in the relevant workshops.</li> <li>• "Proving Sustainability" was identified as a priority area for on-going collaboration between stakeholders at the WA Sustainable Agriculture Roundtable convened by the WA State Landcare Coordinator, Sustainable Resource Use Facilitator and NRM Service Integration Manager for DAFWA.</li> <li>• Discussions took place with the Mingenew/Irwin and Blackwood</li> </ul> |

| Project           | Evidence of linkages created  |
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|                   | <p>Basin groups as well as other EMS, NRM and grower groups regarding the possibility of contributing to the workshop presentations. Agreement in principle took place, however, finding mutually agreed-on times and places proved problematic. While training additional presenters was a worthwhile aim, getting the necessary agreements and processes in place required more time than was available.</p> <ul style="list-style-type: none"> <li>• Discussions took place with Farmsafe WA Alliance representatives to look into a closer working relationship and distributing information at their workshops.</li> </ul> <p><b>Workshop attendees and gatekeepers</b></p> <ul style="list-style-type: none"> <li>• A contact database was developed, includes people involved or interested in EMS, Pilot Projects, Regional NRM Councils, Landcare Groups, Industry, regional and grower groups etc. Links to individuals with local influence was seen as an important strategy to increase the number of workshop participants.</li> <li>• Regional NRM, landcare and grower groups were contacted regarding workshops and have been a useful source of contacts and information distribution.</li> <li>• A list of people who had regional influence and who might act both as EMS champions and as a catalyst to generate greater workshop participation was compiled by project manager Ross Hardwick, Steering Committee members and Hassall &amp; Associates.</li> <li>• Discussions with The ERA Farming Co. (a growers group) regarding the utilisation of “gatekeepers” as a means of increasing workshop attendance led to a workshop in Margaret River using their suggested gatekeeper.</li> <li>• Gingin workshop - the local Landcare group agreed to hold their monthly meeting at the same venue as the workshop so that members could attend both events. One of their members gave a short presentation on their work as part of our workshop. This helped to boost the number of participants.</li> </ul> |
| <p><b>PGA</b></p> | <p><b>Government</b></p> <ul style="list-style-type: none"> <li>• Final workshop coincided with the 2007 Pastoral Conference and provided opportunity for industry to present the preliminary “Rangecare” concept to Government, general acceptance by relevant government agencies.</li> <li>• PGA project had ongoing discussions with the Pastoral Lands Board regarding the status of the review (including the Green Paper due for release) and the likely outcomes of the proposed rolling lease and associated environmental assessment to be introduced by 2015. This relationship provides a solid foundation for ongoing pastoral contributions to developing the “new” lease environmental assessment process and criteria.</li> <li>• Most WA pastoralists are involved in monitoring for lease inspections under the WA Rangelands Monitoring Sites (WARMS) program run by the WA Department of Agriculture and Food.</li> <li>• Annual pastoral conference included presentations and discussion amongst pastoralists, PGA Committee members, Pastoral Lands</li> </ul>   |

| Project | Evidence of linkages created   |
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|         | <p>Board representatives, Department of Agriculture, Department of Environment and Conservation, Conservation Commission and representatives of the Rangelands Coordinating Group (Regional NRM Body) creating linkages and facilitate input into future industry directed lease monitoring and reporting system.</p> <p><b>Cross industry</b></p> <ul style="list-style-type: none"> <li>• Project staff attended the National Pathways/ Pilot EMS Project Forum and the WA EMS Forum but found little common ground with other projects. Follow up discussions with relevant projects- Farming for the Future run by Department of Agriculture and Food) and those being carried out by industry groups AWI and MLA, were held throughout the project.</li> </ul> <p><b>Lessons from elsewhere</b></p> <ul style="list-style-type: none"> <li>• Reviewed the concepts and materials utilised in Northern Territory and Queensland pastoral EMS projects to identify where these could add value to a WA system.</li> <li>• Project manager met with the Rangelands Coordinating Group staff on several occasions, allowed the project to remain informed on the progress of related NRM programs and projects that support the implementation of EMS components in a pastoral setting.</li> <li>• Project used the findings from past projects, particularly the EMU project run in the Southern Rangelands of WA and the Grazing Land Management Program being implemented in other States.</li> </ul> <p><b>Within industry</b></p> <ul style="list-style-type: none"> <li>• A number of promotional opportunities were utilised. An article describing the project and its objectives was submitted to the Southern Pastoral Memo in February 2006.</li> <li>• 6 industry group meetings were held - 75 pastoralists and 25 others attended, opportunities to foster and develop strong industry relationships and share information on this project. Three (3) Workshops were held to coincide with these industry meetings (attended by 37 pastoralists) and used as a forum to determine how pastoralists perceived the practicality and value of EMS for achieving improved business and resource management outcomes.</li> </ul> |

## Adoption

| Projects             | Evidence of adoption   |
|----------------------|--|
| <p><b>Cotton</b></p> | <ul style="list-style-type: none"> <li>• On-going adoption of environmental on-farm BMP Program.</li> <li>• Utilisation of classing BMPs, auditing of classing facilities.</li> <li>• Utilisation of ginning BMPs, auditing of gins.</li> <li>• Use of BMP certificates for shipments of BMP cotton.</li> <li>• Use of BMP background information to inform marketing in Japan.</li> </ul> <p><b>Training</b></p> <ul style="list-style-type: none"> <li>• A training course was developed for all sectors of the cotton supply chain to inform them about customer needs and expectations and the quality-control requirements of the industry.</li> <li>• The training course runs over 3 days at the CSIRO Textile and Fibre Technology's (CTFT) research and development facilities in Geelong. The Field to Fabric Training course has been run 4 times since the inaugural course of August 2005, with 105 participants. Further courses are planned for both 2007 and 2008. The following sectors have been represented by course participants: Cotton growers 15; Cotton picking 1; Ginners 29; Classers 9; Extension Officers 4; Merchants (domestic) 15; Merchants (international) 6; Spinners 5; Others 21.</li> <li>• The course has received extremely positive feedback — with the need to run 3 courses in 2006 to cater for demand, instead of the planned sole course, as evidence. In addition, the course has been aligned with several competencies from the national training package for vocation training and education.</li> </ul> |
| <p><b>Dairy</b></p>  | <ul style="list-style-type: none"> <li>• 3 BizLINK projects, a process designed to incorporate natural resource management into farm financial and business planning. Murray Dairy -North Central Catchment Regional BizLink trial; Sub Tropical Dairy. Darling Downs Young Farmers BizLink Project (45 farmers); Dairy SA, BizLink Project.</li> <li>• 8 BetterPRAC projects - regional NRM programs designed to increase NRM capacity on farm: 3 BetterPRAC pilots of NRM programs from another region: GippsDairy- BetterPRAC (12 farmers); DairySAT On the Ground in SA (18 farmers); DairySAT implementation in the Lachlan Valley and Riverina DIDCO (16 farmers); 1 BetterPRAC pilots of new NRM programs: WestVic NRM Focus Farms (13 focus farms with approximately 10-12 farmers in each group.); 4 BetterPRAC pilots of new NRM programs: Dairy Catch 11 Western Dairy, WA (16 farmers); Water Use and Nutrient Management project - DairyTas. (18 farmers); BetterPRAC pilots aimed at improving existing regional NRM programs; Farmer Targets for Change DIDCO (17 farmers); Dairying Better'n'Better Continuous Improvement project . Sub Tropical Dairy (20 farmers).</li> <li>• To date over 1000 farmers have participated in DfT:On the Ground BetterPRAC programs. Regions that completed their pilots early in the project have leveraged further funding for on-going implementation.</li> <li>• 1000 farmers having completed DairySAT (12% of Australian dairy</li> </ul>  |

| Projects            | Evidence of adoption   |
|---------------------|--|
|                     | <p>farmers)</p> <ul style="list-style-type: none"> <li>• 80% - 85% of these farmers have implemented or committed to implement action plans developed during their participation in the program.</li> <li>• After experimentation each region has concluded DairySAT should be delivered one-on-one as an entry point into a more comprehensive NRM program designed to support farmers through the change process.</li> <li>• Nearly all farmers have reacted positively when asked to participate and in some regions 90% of farmers approached on a sub-catchment basis have participated.</li> </ul>   |
| <b>Horticulture</b> | <ul style="list-style-type: none"> <li>• Campaign to increase industry awareness and ownership through an Industry Summit held in November 2004. Industry Summit held to bring together leaders in the sector to discuss the issue of environmental management within horticulture, highlight challenges and map the way forward in an open, collaborative and engaging way; draft guidelines for Environmental Assurance and the draft Vision and Strategy for Environmental Management in Australian Horticulture were launched for comment.</li> <li>• Horticulture for Tomorrow Environmental Assurance Workshop gave over 100 delegates a chance to review the draft Guidelines for Environmental Assurance in Australian Horticulture (launched the previous week at Industry Summit).</li> </ul> <p><b>Trials</b></p> <ul style="list-style-type: none"> <li>• Guidelines for Environmental Assurance for Australian Horticulture extensively trialled by 196 growers in 21 groups from across Australia. In addition, more than 40 other stakeholders, from regional NRM groups and state agencies also participated in the review, either as group members or individual feedback. 22 horticultural commodity groups were involved directly in the trials, Grower groups in all States and Territories (except ACT) in Australia, with many groups located in areas of high horticultural focus. This constitutes all horticultural climatic conditions.</li> <li>• During the grower trials 196 growers participated in workshops or one-on-one facilitation to review the draft Guidelines and to provide comments on the future of environmental assurance for their enterprise.</li> <li>• The timeframe for trialling the guidelines did not permit many businesses to progress far down the implementation path.</li> </ul> <p><b>Distribution</b></p> <ul style="list-style-type: none"> <li>• Introductory Guide to Environmental Management in Australian Horticulture developed and distributed as component of Stage 1 Communication Plan. 3 print runs were undertaken due to high demand of the document –13,000 copies produced.</li> </ul> |
| <b>Pork</b>         | <ul style="list-style-type: none"> <li>• Over 850 producers in APL's APIQ and PigPass management systems at April 07.</li> </ul> <p><b>Trials</b></p> <ul style="list-style-type: none"> <li>• 20 piggeries ranging from 100 sows to over 200,000 pigs have</li> </ul>   |

| Projects | Evidence of adoption   |
|----------|--|
|          | <p>completed an EMS pilot.</p> <ul style="list-style-type: none"> <li>• EnviroCheck - In addition to the 20 piggeries that directly participated in the EMS trials, 36 producers participated in EnviroChecks.</li> <li>• Approximately 30% of the pork industry, by production, has participated in APL's ESP trials at some level.</li> <li>• A trial of EMS, based around EMPs, EnviroCheck and Environmental Improvement or Action Plans has been run at 15 piggeries. A further three piggeries have chosen to use an ISO 14001 approach for their EMS.</li> </ul> <p><b>Training course</b></p> <ul style="list-style-type: none"> <li>• The EMPs for Piggeries course and the existing Environmental Principles for Piggeries were delivered in all states in 2004 and again in 2006; 16 training courses have been held – 9 EMP courses with 63 attendees; 7 EPP courses with 62 attendees.</li> </ul> <p><b>Audits</b></p> <ul style="list-style-type: none"> <li>• 6 audits with NSW producers with an average compliance of 86%;</li> <li>• 9 audits with QLD producers with an average compliance of 82%;</li> <li>• 6 audits with SA producers with an average compliance of 60%;</li> <li>• 3 audits with VIC producers with an average compliance of 83%;</li> <li>• 12 audits with WA producers with an average compliance of 81%;</li> <li>• 14 ESP participants with an average compliance of 87%.</li> </ul> <p><b>Level 1 EMS</b></p> <ul style="list-style-type: none"> <li>• Australian Pork Farms Group (APF) - approx 15,000 sows in SA. Three APF farms participated in the ESP trial representing over half their sow herd; APF is now using EnviroCheck, incident recording and Environmental Action Plans at its main sites and has indicated a willingness to participate in APL's EMS program when it is finalised.</li> <li>• WestPork - approx 6,000 sows in WA. It had one piggery with approx 4,500 sows that participated fully in the ESP trials.</li> <li>• Windrige Farms – approx 4,500 sows in southern NSW. It has EMPs for all its piggeries; their own form of EMS operating at their sites; seeking to make EnviroCheck a requirement for their contract growers and it has indicated a willingness to participate in APL's EMS program when it is finalised.</li> <li>• Dienze Nominees (a KR Castlemaine company) - 3,800 sows in VIC; has participated in EnviroCheck; already operate a form of EMS that should comply with APL's EMS standard.</li> <li>• George Western Foods (GWF) - approx 3,500 sows at its Wandalup site in WA which participated in the ESP trial. GWF is looking to make EnviroCheck a requirement for its contract growers.</li> <li>• A number of medium scale producers, with 160-1,000 sows each, also participated in the ESP project. If the environmental module in APIQ is ever to have the popularity of the wider APIQ program (at around 60-70% industry coverage), then it must be taken up by approximately 500 of these producers.</li> </ul> <p><b>Level 2 EMS – ISO 14001</b></p> <ul style="list-style-type: none"> <li>• Tong Park - 7000 sow piggery in QLD; had its EMS ISO 14001</li> </ul> |

| Projects              | Evidence of adoption  |
|-----------------------|---|
|                       | <p>accredited in 2007 as a part of APL's ESP project. It is anticipated that they will continue to participate in APL's EMS program.</p> <ul style="list-style-type: none"> <li>• QAF Meats (QAF) - Australia's largest producer with over 57,000 sows; based in southern NSW and VIC; has developed EMPs for all sites and has implemented an ISO 14001 certified EMS at their abattoir and effluent management facilities in Corowa NSW; conduct regular internal EnviroChecks at all company owned sites; have recently merged their Safety, Environment and Quality Assurance departments and plan to develop an integrated management system; the final form of EMS used is yet to be determined.</li> <li>• The TopPork Alliance - approx 10,000 sows spread over 23 family owned farms in SA and VIC; a number of members participated in EnviroChecks and environmental training; TopPork is considering adopting EnviroCheck as a member requirement.</li> </ul>   |
| <p><b>Seafood</b></p> | <p><b>Distribution</b></p> <ul style="list-style-type: none"> <li>• Over 700 people have subscribed to the Seafood Production SSA mailing list that delivers targeted and relevant EMS and sustainability information. An EMS Pathways and Pilots monthly newsletter was developed, which updated subscribers on happenings of the projects. This was published monthly, after the completion of the Pilot project the happenings of the EMS Pathways project were promoted in each edition of SSA News (an insert into the FRDC News that has 13,500 subscribers).</li> </ul> <p><b>Regional workshops</b></p> <ul style="list-style-type: none"> <li>• Conducted five regional workshops (Geelong - VIC, Coffs Harbour - NSW, Darwin - NT, Sydney – NSW x 2), general consensus that the seafood industry had moved on from this approach and what was required were more focussed workshops tailored to individual groups on an as needed basis.</li> <li>• Victoria Bay and Inlet Fisheries Association Chair, Tim Mirabella, Little Swanport Estuary EMS Chair, Col Dyke, Gary Howard (Hawkesbury River fisher) and Gary and Claudine Ward (Gulf of Carpentaria Association) also presented at a number of introductory EMS workshops sharing the experiences with interested seafood industry members.</li> </ul> <p><b>Mentoring program</b></p> <ul style="list-style-type: none"> <li>• Over 70 industry members have participated in the Seafood EMS Mentoring program to facilitate the building of relationships and sharing of knowledge by people involved in the development and implementation of a Seafood EMS, designed to accelerate the learning's of people commencing the EMS journey by encouraging and supporting seafood EMS enthusiasts/leaders to share their experience, knowledge, and lessons gained through their own process.</li> <li>• Fishers from the Gulf of Carpentaria shared experience at a workshop with Northern Territory barramundi fishers in Darwin.</li> <li>• Fishers for the Moreton Bay EMS group were able to travel to South Australia to meet with fishers from the Spencer Gulf Trawl fishery to learn more about real time monitoring.</li> <li>• Fishers from the Victoria Bay and Inlet Fisheries Association were</li> </ul> |

| Projects            | Evidence of adoption  |
|---------------------|---|
|                     | <p>able to host fishers from the South Australian Marine Scale fishery and demonstrate how they operate under an EMS.</p> <ul style="list-style-type: none"> <li>• Little Swanport Estuary EMS Committee Chair, Col Dyke, was able to meet with a group of oyster farmers based around Clyde River, NSW to discuss the benefits of the little Swanport EMS.</li> <li>• Follow up mentoring activity with members of the Spencer Gulf Trawl fishery able to travel to Queensland to learn more about the communication methods utilised by the Moreton Bay EMS group.</li> <li>• Farmers from the Australian Barramundi Farmers Association completed a study tour of the EMS activities in the salmon industry.</li> </ul> <p><b>Resource input to adoption</b></p> <ul style="list-style-type: none"> <li>• Provided support to seafood industry members developing and implementing a Seafood EMS including attendance at meetings, onsite visits, forums and assisting with communication.</li> </ul>  |
| <b>CANE GROWERS</b> | <ul style="list-style-type: none"> <li>• A series of regional information sessions were conducted by CANEGROWERS in October 2005 to February 2006. In conjunction with Agrecon, the sessions were held in 12 regional centres across NSW and Queensland. These information sessions covered "the concept of FMS" with key industry advisors eg. BSES, growers, Productivity Boards, Millers, and more specifically about the FMS program being developed by Agrecon.</li> </ul>   |
| <b>Sugar</b>        | <p><b>Awareness of FMS</b></p> <ul style="list-style-type: none"> <li>• Growing acceptance of the utility of the 'Sugar FMS Tools', as gauged from an Industry workshop held on 18 October 2006 that was attended by representatives of nearly all sugar-growing regions.</li> <li>• Baseline and subsequent surveys of sugarcane farmers knowledge, attitudes and aspirations related to FMS (FMS005) indicated increasing awareness, acceptance and understanding of FMS over the period 2005 to 2007.</li> <li>• Each of the three surveys covered about 5% of the 4000 Australian sugarcane farmers, about 75% of those surveyed believed that they will eventually undertake an FMS, Farmers strongly supported a voluntary approach to undertaking FMS and self-assessment rather than auditing, overall the surveys showed a positive response to the concept of FMS.</li> </ul> <p><b>Demand for FMS</b></p> <ul style="list-style-type: none"> <li>• Now a demonstrable demand for FMS-based programs in several regions, although not all regions wish to use the 'Sugar FMS Tools' web-based materials. At least two regions (NSW and Proserpine) wish to use a manual FMS system (materials for which can be printed from the website). Several districts are tailoring the various sugar industry resources such as Sugar FMS Tools, BSES Ltd's Farm Productivity Improvement Program and sugar mills' geographic information systems to suit regional needs.</li> </ul> <p><b>Trial and use of FMS Check</b></p> <ul style="list-style-type: none"> <li>• 10 case study farmers found the FMS Check process easy to use and nine of these stated that they believed that it would be valuable for the sugar industry to adopt this process. average completion time for the FMS Check risk assessment questionnaire was 28</li> </ul> |

| Projects                   | Evidence of adoption   |
|----------------------------|--|
|                            | <p>minutes (range 15 to 45 minutes). With the review of recommendations, the initial FMS Check for an individual farm/ farmer can be completed in about two hours. Development of action plans takes longer.</p> <ul style="list-style-type: none"> <li>• FMS Check starting to be used as the entry point to assess risk by BSES Ltd advisors (12 farmers at 21 February 2007) with other specific industry programs being used to record and report performance at individual farm block level.</li> <li>• Use of Sugar FMS Tools by cane farmers cannot be assessed although website hits have steadily averaged 30-40 per week through 2007.</li> </ul>  |
| <p><b>Chicken meat</b></p> | <p><b>Training workshops</b></p> <ul style="list-style-type: none"> <li>• 33 workshops and 2 auditor training courses to inform the meat chicken industry of the EMS process and the National EMS Guidelines, 240 growers have attended EMS workshops.</li> <li>• Training of industry representatives to become second-party auditors, auditors participated in the AQTF accredited course NQ06 in Internal Auditing, and when successfully completed, received a Certificate of Attainment in Internal Auditing.</li> <li>• Newer farms normally are required to develop Environmental Management Plans as part of their Development Application for the new farm. A number of these growers are attending workshops to get a better understanding of issues.</li> </ul> <p><b>Information distribution/publicity/ awareness</b></p> <ul style="list-style-type: none"> <li>• All 800 growers have become aware via the local and state chicken grower organisations, which have distributed information and circulated flyers and factsheets to the growers. The chicken meat industry is quite a close-knit industry and information dispersal is relatively easy compared with some agricultural industries.</li> <li>• To publicise the launch of the National EMS training package to industry, a series of workshops to achieve this were run around the country in Adelaide, Perth, Melbourne and Sydney. These adoption targets were met, with all 800 growers becoming informed about the EMS program, and 240 growers have attended the workshops. It is estimated that 240 growers represent approximately 30% of the productive capacity of the industry. This program has initially attracted those farms, which are located in the more closely settled areas, as this is where the pressures have been greatest.</li> </ul> <p><b>Audits</b></p> <ul style="list-style-type: none"> <li>• 25 audits (farms have an EMP and audited for EMS performance) have been achieved to date. There has been high demand and interest from growers requiring on-farm audits, however resourcing has limited audits being done.</li> </ul> |
| <p><b>Eggs</b></p>         | <p><b>Training egg businesses in EMS</b></p> <ul style="list-style-type: none"> <li>• 11 “Environmental Principles for the Egg Industry” workshops around Australia from June to August 2006 - 98 participants, majority were producers (egg farms, pullet rearers and grading floors), with approximately 10 – 15 % being industry auditors. Amongst these businesses there is an approximately equal</li> </ul>  |

| Projects           | Evidence of adoption   |
|--------------------|--|
|                    | <p>representation from small (&lt;10,000 birds), medium (10,000 – 50,000 birds) and large (&gt;50,000 birds) operations. The majority (~95%) are in rural areas with the remainder in periurban regions.</p> <ul style="list-style-type: none"> <li>• 2 one-day workshops held with representatives from layer breeder, hatcheries and egg product manufacturing sectors in March 2006 to identify any required training needs. A total of ten companies represent these sectors.</li> </ul> <p><b>EMS promotion and compliance</b></p> <ul style="list-style-type: none"> <li>• 6 promotion workshops around Australia in February and March 2007. The course content included: • Information on ECA. • How to become Egg Corp Assured accredited. • Auditing requirements - with specific emphasis on updated EMS audit requirements.</li> <li>• 81 participants, majority were producers, with approx 6 industry auditors.</li> </ul> <p><b>Audit- licenses</b></p> <ul style="list-style-type: none"> <li>• Since the EMS component of ECA was officially incorporated in May 2006, 64 ECA licenses have been issued (37.6% of businesses and 47.5% of the national flock).</li> <li>• 112 ECA licenses in total have been issued for egg farms, all have to comply with the EMS component of ECA by the following annual audit to retain their ECA license. A further 30 licenses are pending (initial plus annual). - combined represents 58.8% of egg businesses and 74.2% of the egg industry flock that will be EMS compliant by May 2007.</li> </ul> |
| <p><b>Rice</b></p> | <ul style="list-style-type: none"> <li>• Employment of regional coordinators has achieved a significant increase in adoption rates by 20% in 18 months.</li> <li>• 23.5% are voluntarily engaged at varying levels (based on number of farm businesses as it links to the recognition process; actual participant numbers are higher as partners and staff members attend cluster group meetings).</li> <li>• Industry wide ECP launch in August 2005 - every landholder in rice growing region has opportunity for voluntary participation .</li> <li>• 32 cluster groups across the rice growing region.</li> <li>• 260 farm businesses participating.</li> <li>• 39 farm businesses have been recognised as Level 1 Environmental Champions.</li> <li>• 2 farm businesses have been recognised as Level 2 Environmental Champions.</li> </ul> <p><b>Promotion</b></p> <ul style="list-style-type: none"> <li>• 85 industry presentations promoting the rice industry and ECP delivered.</li> <li>• Field Day held in 2006 to promote 'innovative' ideas such as bio-diesel, native seed orchards, benefits of on-farm vegetation (case study) and minimising spray drift. The most important outcome for the day was the interaction between cluster groups from each region to expand their networks across the region.</li> </ul>   |

| Projects | Evidence of adoption   |
|----------|--|
| VFF      | <p><b>Training</b></p> <ul style="list-style-type: none"> <li>• About 100 project presentations were delivered; EMS Pathways Officers directly trained about 900 farmers to EMS Stage 1 and about 700 to EMS Stage 2.</li> <li>• EMS Pathways Officers also trained 78 service providers (eg departmental, CMA and Landcare personnel) to also provide EMS-type training to landholders.</li> <li>• Collectively, there are now about 2,200 Victorian farmers who have achieved at least EMS Stage 2 from the range of training providers over recent years: 686 trained by Pathways Officers; 300 trained by others using Pathways resources (expected to increase significantly with the 78 training providers trained by Pathways Officers); and 1214 trained by others prior to Pathways project.</li> </ul> <p><b>Promotion</b></p> <ul style="list-style-type: none"> <li>• The presentations were made to people all over Victoria and included: VFF board, policy and commodity groups, branches; Catchment Management Authorities; State and local government groups and individuals; Landcare and environmental groups and organisations; Extension staff, consultants and trainers; Industry and productivity groups; Conferences and field days; Journalists; Other EMS Pathways project personnel.</li> <li>• 207 training sessions, workshops, seminars, training events created.</li> </ul>   |
| Wine     | <p><b>Wine company engagement</b></p> <ul style="list-style-type: none"> <li>• Pilot programme to trial the AWIS approved supplier model - 5 companies across 6 regions and 468 growers were involved in the AWIS pilot in 2005/2006 from Expression of interests. Participating companies were required to include the AWIS survey as a spray diary insert, completed and returned by growers supplying fruit to the wine company as a condition of contract. The company was then responsible for analysing survey returns, and identifying training needs, the adoption of current best practice and other issues of significance to the company. Most participating companies also incorporated a grower extension process when spray diaries were issued to ensure that growers were clear on the objectives of AWIS and the need to complete and return the AWIS surveys. The WFA prepared a report based on the findings of the Pilot.</li> <li>• Broader industry roll out of the AWIS approved supplier model - 13 wine companies, representing approximately 70% of Australia's national wine grape crush participated in the broader AWIS roll out in 2006/2007. Prior to the broader industry roll out of AWIS, 23 AWIS workshops were conducted around Australia, with 445 participants including grape growers, winemakers, wine company representatives and a small number of NRM body representatives.</li> </ul> <p><b>Regional workshops</b></p> <ul style="list-style-type: none"> <li>• 23 regional workshops were held with a total of 445 attendees.</li> <li>• Hardy Wine Company (largest contract grower base with 1400 contract growers across Australia supplying the company) requested the AWIS workshop be delivered at all grower pre-vintage meetings. The AWIS workshop has been delivered to Hardy's grower workshops at their Stanley Winery in Mildura (100 growers),</li> </ul> |

| Projects        | Evidence of adoption  |
|-----------------|---|
|                 | <p>Stonehaven at Padthaway (25 growers), CCW grower cooperative in the SA Riverland (750 growers) and Tintara at McLaren Vale (100 growers).</p> <p><b>Resource input</b></p> <ul style="list-style-type: none"> <li>• Companies agreeing to participate were provided with the AWIS survey template complete with eleven National Indicator Questions for use as the minimum survey content, coordinator support for grower extension activities, survey analysis and reporting spreadsheet templates and information on survey linkages to regional natural resource management board priorities.</li> </ul>  |
| <b>Grains</b>   | <ul style="list-style-type: none"> <li>• Data initially gained from personal contacts to trial and test the system.</li> <li>• Since gone online in January 2007, data coming in and is increasing on a weekly basis, with unsolicited dataforms being submitted via the GCA website.</li> <li>• Approximately 1000 farmers have been directly involved and contacted.</li> <li>• 204 Contact email addresses of farmers wishing to participate.</li> <li>• 117 data forms submitted to date.</li> <li>• 711,381 Hectares of farmland currently in database.</li> <li>• 399,481 Hectares of cropland currently in database.</li> <li>• 230 farmers in contact database.</li> <li>• On Average 8 forms received / week.</li> <li>• Data gathered from previous work in various projects, and incorporated into the database of this project, have provided a further 280 farm businesses data, comprising 850,000 ha of farmland, cropping 550,000 ha, giving an approximate total at mid May 2007 of 500 farms with 1.55 million hectares of farmland, and 950,000 ha of crop.</li> <li>• 2 private agronomists are entering their client details into a specialized data entry form.</li> <li>• 7 groups sending forms to their members via their contact lists: CWFS (200 members); Birchip (550 members); Mallee (150 members); AgForce (11,000 on contact list); SAFF Grains (4000 on contact list); Australian Grain Accumulators (16,000 on contact list); Grain Growers Association (NSW/Qld/Vic) (11,000 members).</li> </ul> <p><b>Presentations</b></p> <ul style="list-style-type: none"> <li>• Planned meeting and presentations with the SA NRM Boards, Gwydir/Namoi CMA, Murray CMA, SRUF group meeting, Lachlan and Central West CMA's.</li> </ul> |
| <b>Wool</b>     | <ul style="list-style-type: none"> <li>• 1002 producers completed the LandLeader survey by telephone.</li> <li>• 82 producers completed the survey unaided via paper based.</li> <li>• 14 producers completed the survey via the web facility.</li> </ul>   |
| <b>Red meat</b> | <ul style="list-style-type: none"> <li>• 1000 graziers participated in the LandLeader telephone survey and another 87 completed the full LandLeader paper-based survey.</li> </ul>  |
| <b>Organics</b> | <ul style="list-style-type: none"> <li>• Stakeholder workshop held to review Organic/EMS Expert</li> </ul>  |

| Projects   | Evidence of adoption   |
|------------|--|
|            | <p>Committee recommendations, endorsed the industry need to strengthen the emphasis on broader environmental issues within the national organic program. The recommendations discussed and means to enable implementation of the recommendations identified.</p> <ul style="list-style-type: none"> <li>• 36 workshop participants consisted of predominately certified organic farmers from across Australia, representing the diverse industry sectors. Six certification bodies' representatives were in attendance.</li> </ul>   |
| <b>QFF</b> | <ul style="list-style-type: none"> <li>• Appointed 4 FMS project officers.</li> <li>• QFF conference (Enhancing Sustainable Agriculture Conference and Trade Show) held March 2006, to showcase industry leadership, a section devoted to presentations on FMS programs, approx 300 attendees, including policy staff of various organisations, primary producers and industry program staff.</li> </ul> <p><b>QDO/ Better 'n Better - in Burnett Mary</b></p> <ul style="list-style-type: none"> <li>• 3 producer groups (Nanango, Monto and Maleny) with a total of 38 producers engaged and completed DairySAT.</li> <li>• Liaison with the regional NRM group Burnett Mary Regional NRM Ltd (BMRG) for incentive funds to support farm action plan implementation to address their identified priority NRM issues.</li> <li>• 9 workshops (3 / group) conducted to address priority issues, farmers were provided workshop notes.</li> <li>• QDO devised a specialist list of personnel to provide technical and advisory support for these workshops.</li> <li>• Facilitated support to develop and implement action plan for each property, based on locally recommended management practices.</li> </ul> <p><b>NGIQ</b></p> <ul style="list-style-type: none"> <li>• NGIQ Farm Management Systems Officer (FMSO) attended 10 industry branch meetings, 7 trade events, 3 Green Expos. NGIQ FMS Officer promoted FMS – NIASA and EcoHort through an industry trade display at International Plant Propagators Society national conference in Brisbane with 150 attendees (the bulk from Queensland).</li> <li>• Engaged 377 nursery production enterprises through training and workshops representing 49% of industry in SEQ.</li> <li>• 201 growers received training through 12 EcoHort Workshops, 90 were formally EcoHort audited (have formal Action Plans) with 34 growers receiving formal EcoHort Certification. A further two businesses have progressed to NIASA Accreditation Standard.</li> <li>• Information and training events conducted also included: 3 Waterwork Courses – 73 growers; 2 Irrigation Sessions – 36 growers; 2 Field Days (EcoHort™ Recycled Water Sampling and Nursery Production FMS) – 67 growers.</li> <li>• FMS officer has delivered over 520 enterprise visits (68% of growers in SEQ).</li> <li>• The EcoHort Workshop was trialled in the Ningi Catchment under the SEQC Ningi Catchment Area Wide Management Project. 14 businesses attended the training workshop and 9 went on to gain</li> </ul> |

| Projects    | Evidence of adoption   |
|-------------|--|
|             | <p>the formal EcoHort Certification.</p> <p><b>Growcom</b></p> <ul style="list-style-type: none"> <li>• Employed an FMS officer in the Burnett area to begin profiling FMS to horticulture producers, assess individual enterprise needs and customise services provided by members of the Growcom Land and Water team, Bundaberg Fruit and Vegetable Growers, Horticulture Australia Ltd, BMRG and government agency staff to producers in the region.</li> <li>• Growcom FMS officer participated in a number of internal workshops to develop the Growcom FMS tool and advised on how it could meet regional needs.</li> <li>• Growcom’s Land and Water team have now developed a number of computer based FMS modules which include farm assessments, can record current practice, highlight areas for improvement, where to go for assistance and a time line for a progress review and these are currently being trialled with Burnett region growers.</li> <li>• Surveys and grower interviews identified workplace health and safety (WH&amp;S) as primary interest, workshops provided as opportunity for relationship development, further contact found soil health as major NRM concern, soil health workshops held and attended by more than 130 growers. This then led to interest in property based risk assessment element of the Growcom FMS and the FMS officer is in the process of following these up via one-on-one farm visits discussing their particular farm management issues and offering a range of support services.</li> <li>• Growcom FMS water use efficiency and draft nutrient modules trialled with 201 growers in the region.</li> <li>• Farm property assessments have become an integral component of the Growcom FMS program with growers able to benchmark current practices against industry standard and identifying gaps. FMS officer refers growers to other industry service providers for assistance.</li> </ul> |
| <b>TFGA</b> | <ul style="list-style-type: none"> <li>• 200 of the estimated 4500 TFGA membership assisted to review farming practices with regard to environmental sustainability.</li> <li>• The facilitators have attempted to contact all vineyards and winemakers in Tasmania to determine interest in environmental issues and in completing FarmSAT. Over 20 vineyards now completed FarmSAT.</li> <li>• Majority of FarmSAT participants worked through the tool with one-on-one assistance from a facilitator. Other delivery methods trialled include group delivery and working through FarmSAT without assistance.</li> <li>• Producer Feedback Form for producers to request additional information or to provide feedback about tool or facilitators. Nearly 25% of producers have voluntarily returned the forms and all been complimentary about facilitators and tool. a high response rate.</li> <li>• Survey of TFGA members indicated that over 44% of respondents had heard of FarmSAT. 16% requested further information on FarmSAT. TFGA has 4500 members so it is reasonable to conclude that the target of 900 producers being aware of FarmSAT by the end</li> </ul>  |

| Projects         | Evidence of adoption   |
|------------------|--|
|                  | of the project has been met.   |
| <b>WAFarmers</b> | <p><b>Annual forums</b></p> <ul style="list-style-type: none"> <li>• A Forum was held on 2<sup>nd</sup> May 2006 by the Pathways project, Farming for the Future and PGA with 38 delegates. Another Forum is planned for July 2007 in Northam when users of EMS in WA will be encouraged to participate.</li> </ul> <p><b>Workshops - participation</b></p> <ul style="list-style-type: none"> <li>• 13 workshops have been held for 330 producers and industry stakeholders with a further three planned for June 2006. 28 producers have taken the workshop materials and guidelines for implementation of an EMS on-farm. Follow-up was provided through letters and emails.</li> <li>• 42% of attendees have not heard of EMS.</li> <li>• Workshop evaluation sheets have indicated very high level of satisfaction, desire or intention for uptake of some of the elements of a whole of farm system. Follow-up letters and emails have resulted in little feedback.</li> </ul> |
| <b>PGA</b>       | <ul style="list-style-type: none"> <li>• 8 workshops (140 pastoralists and 71 other attendees) targeting pastoralists in the Southern Rangelands to introduce the concepts and potential use of an EMS approach in the WA Rangelands, workshops provided the opportunity to gather pastoralists' views and an appreciation of their current understanding or perceptions of the relevance of EMS.</li> <li>• Advice on other support programs, primarily ESRM, was given to all pastoralists in attendance at the workshops and 27 individuals who requested further information. The Pathways project did not track the outcomes of the referrals.</li> </ul>   |

## Increased industry ownership of EMS

| Project       | Evidence of increased industry ownership of EMS  |
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| <b>Cotton</b> | <ul style="list-style-type: none"> <li>• Direct engagement of the classing and ginning sectors in the trial, including regular presentations to association meetings about the EMS Pathways project, have assisted to increase industry ownership, such that a number of the sectors have expressed a desire for on-going support for their recently developed programs. These include maintaining the classing BMP program, a second round of gin audits, further investigations into the issue of bale moisture, holding a harvesting-focused workshop, and the development of warehousing BMPs by the shippers. The Project has also made regular presentations to industry associations and conferences.</li> </ul>  |
| <b>Dairy</b>  | <p><b>Industry co-contribution</b></p> <ul style="list-style-type: none"> <li>• Co funding has included cash and in kind contributions estimated at \$2.4m. Part of the in-kind includes time spent by stakeholders attending meetings and providing advice and support materials for projects.</li> </ul> <p><b>Industry endorsement</b></p> <ul style="list-style-type: none"> <li>• All industry stakeholders now endorse DairySAT as the industry EMS tool. Industry NRM programs such as the ADF sponsored, NHT funded .DairyGain\$. project will use DairySAT as the monitoring tool of choice in response to milk company endorsement.</li> <li>• Six regions were fully supportive of DairySAT at the start of the project. DairySA and Murray Dairy were not. By mid 2005 DairySA had endorsed DairySAT and by early 2006 Murray Dairy initiated a regionalised version of DairySAT indicating its full support for the tool. At the start of the project only two dairy regions had integrated NRM programs (BetterPRAC programs). By mid 2005, seven of the eight dairy regions were exploring routes to market or .Pathways to EMS. projects. These projects involved a range of stakeholders and were endorsed by the dairy industry Regional Development Boards and state farming organisations. This represented a major increase in industry ownership compared to the start of the project.</li> <li>• Murray Dairy, the only region without a clear pathway to EMS was intending to trial a regional EMS program based on the DIDCO Targets for Change model but has had to delay its implementation due to the severity of the drought.</li> <li>• Milk companies involved include: Pauls-Parmalat, Dairyfarmers Co operative, National Foods, Norco, Warrnambool Cheese and Butter, Bega Cheese, Murray Goulburn, Fonterra, Cadbury and Burra Foods. Some are delivering DairySAT to farmers e.g. Bega Cheese and Warrnambool Cheese and Butter.</li> </ul> <p><b>Recognition by externals</b></p> <ul style="list-style-type: none"> <li>• DairySAT has become a well recognised tool and is actively sought by farmers not involved in industry EMS programs. Non dairy farmers are also expressing an interest in using DairySAT, in particular beef farmers.</li> <li>• Successful regional programs are finding it easier to attract</li> </ul> |

| Project                    | Evidence of increased industry ownership of EMS   |
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|                            | <p>stakeholder funding and farmer participants, with some regions reporting more farmer interest than they have funding to support (WestVic, DIDCO and Subtropical Dairy).</p> <p><b>Producer support</b></p> <ul style="list-style-type: none"> <li>• Farmer feedback has been positive, with farmers mentioning a range of benefits beyond enhanced environmental outcomes. These include the opportunity for social contact, provision of technical support and community recognition (as demonstrated through incentive funding).</li> </ul> <p><b>Within industry communication</b></p> <ul style="list-style-type: none"> <li>• Communication network focussed on industry EMS Pathways Projects involving industry, NRM agency and government agency representatives was established very early in the project. This helped create a culture of collaboration, sharing and support which has persisted throughout the project. Regions regularly contact each other for support, ideas and technical information. Any information that an individual or organisation feels could be relevant is circulated throughout the network. Whilst the network is more emergent than formal it is underpinned by the following activities: A monthly DfT newsletter; A monthly DfT coordinators and DairySAT managers telephone link up; Annual DfT Information Exchange Workshops including industry, NRM agency and government representatives. (3 were run); Dairy EMS Pilots and Pathways workshop; Involvement in EMS National conferences; The DfT Web site; Regional NRM workshops and committees; Project Steering Committees; DairySAT summits.</li> <li>• Information exchange workshops and regional workshops have played a significant role in enhancing working relationships between industry, NRM agencies and governments. Attendance at workshops indicate these enhanced relationships with representation from State and Federal Government Agencies, regional NRM agencies, Landcare, Local Government, RDP boards, state dairy farmer organisations, service providers, and milk companies.</li> </ul> <p><b>Other industry bodies adopting – integration</b></p> <ul style="list-style-type: none"> <li>• Community and industry drivers are also emerging, for example the Australian Dairy Farmers Ltd sponsored, NHT funded .DairyGain\$ project is championing the use of DairySAT as the monitoring tool of choice in response to milk company requests. If DairySAT is selected as the monitoring tool the effluent section will become part of the milk company QA system within Victoria.</li> </ul> |
| <p><b>Horticulture</b></p> | <p><b>Industry leadership</b></p> <ul style="list-style-type: none"> <li>• Horticulture for Tomorrow Industry Leadership Group (ILG) appointed by HAL and HAC, 5 members and independent chair.</li> <li>• Five ILG meetings were held since June 2004, with three face-to-face meetings held in Stage 1 and two in Stage 2.</li> <li>• In 2004, a draft Vision and Strategy Statement for Environmental Management in Australian Horticulture was developed and distributed at the Industry Summit in November 2004 for discussion and comment. Comments and feedback were collated and</li> </ul>   |

| Project | Evidence of increased industry ownership of EMS  |
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|         | <p>discussed at the ILG meeting in January 2005, and a final version of the Vision was developed at the meeting.</p> <ul style="list-style-type: none"> <li>• Vision document was distributed to industry and uploaded on the website.</li> <li>• An Industry Summit was held in Sydney November 2004 in conjunction with HAL's Industry Forum/AGM.</li> </ul> <p><b>Industry input</b></p> <ul style="list-style-type: none"> <li>• TQA Conference Workshop session November 2004 - timing coincided with the Industry Summit, and launch of first draft of the guidelines and stakeholders were invited to provide comment. To ensure linkages with existing quality assurance schemes and broaden the audience of reviewers to technical practitioners within specific fields, this workshop hosted for critical review. Participants broke into technical groups, each focused on a chapter within the guidelines. Groups were facilitated by members of the Technical Steering Committee to maintain consistency and ensure feedback captured coherently. This additional critique provided credibility of the technical merit of the document. This also ensured that the second draft version of the guidelines, which was reviewed throughout the grower trials, was an extremely comprehensive document that was close to completion.</li> <li>• More than 40 other stakeholders, from regional natural resource management groups and state agencies also participated in the review, either as group members or through individual feedback.</li> <li>• Each of the technical sections of the guidelines were subject to review by a recognised authority in the particular field. The guidelines were sent to all states and territories where horticultural products were grown for a review of the content against legislative requirements.</li> <li>• Grower trials of the draft Guidelines undertaken from April – October 2005. 196 growers and 21 groups were established to get a broad cross section of commodities and maximise industry participation around Australia.</li> <li>• Communication internal and external, at both the grower and leadership level.</li> <li>• A Stakeholder Program in both Stage 1 and 2 to drive industry support for the project, key to reaching growers as driven through industry member organisations.</li> <li>• No formal surveys of industry representatives, anecdotal feedback with stakeholders indicated industry support remained strong.</li> <li>• The NRM session at the HAL Industry Forum allowed Horticulture for Tomorrow to update industry on environmental management issues and generate more input from industry. In a workshop session, delegates identified current issues relating to environmental management and how they are impacting on horticulture, as well as priorities relating to what needs to be done in terms of future projects and agri-political action.</li> <li>• Initial activities designed to recruit growers to the trials proved successful, with more than the required number (310) of growers</li> </ul> |

| Project        | Evidence of increased industry ownership of EMS  |
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|                | <p>expressing interest.</p> <ul style="list-style-type: none"> <li>• The majority of the 196 growers involved in the trials proved happy to be associated with the exercise, and provided positive feedback to facilitators. Contacted every grower and checked whether they were happy to be listed as participants in the final guidelines and only five declined.</li> </ul>  |
| <b>Pork</b>    | <p><b>Industry co-contribution</b></p> <ul style="list-style-type: none"> <li>• APL’s board and management have approved a voluntary environmental module being incorporated into the new 2007/2008 edition of APIQ and will provide the resources for this.</li> <li>• APL funded the development of first version of the National Guidelines and has committed significant resources to promoting it to producer and regulators. APL’s R&amp;I divisions has continued to develop BMPs and sound science to support and update the National Guidelines where appropriate. APL has committed funds to continue this work in 2007/2008.</li> </ul> <p><b>Incorporation into other industry structures</b></p> <ul style="list-style-type: none"> <li>• APIQ auditors have been trained to deliver EnviroCheck assessments and have been consulted on APL’s EMS standard.</li> <li>• Long term commitment, even for existing ESP project participants will depend on their experiences of the new facilitation and auditing process during the expansion and mainstreaming of the EMS program into APIQ. Nevertheless, informal verbal interest has been expressed as well as active participation in the trials to date.</li> </ul>  |
| <b>Seafood</b> | <ul style="list-style-type: none"> <li>• Project was supported by the policy and management framework established by SSA to enable delivery of the anticipated outputs of the project on time and within budget.</li> <li>• Links established to existing initiatives and programs.</li> </ul> <p><b>Industry input to planning</b></p> <ul style="list-style-type: none"> <li>• Summit brought together key people from within the seafood industry including producers from all State and Territory government agencies, non-government organisations, researchers, investors, certifying bodies and standards agencies.</li> <li>• Summit confirmed the vision for Seafood EMS as: “EMS is regarded by all working in and supporting the seafood industry as the key to sustainable development of the industry”. Including Incorporating key lessons from previous EMS initiatives into the development and revision of the Seafood EMS Resources; Development of the Seafood Communication Kit and other Seafood EMS Resources disseminated to industry; The alignment of the Seafood EMS Resources with the new EMS units in the National Seafood Industry Training Package; Extension of outcomes and progress to industry and wider community through the SSA EMS Website.</li> </ul> <p><b>Industry co-contribution</b></p> <ul style="list-style-type: none"> <li>• Significant in-kind contribution by industry was surpassed through involvement in activities including: attendance at meetings, management and involvement in project and significant mentoring activities.</li> </ul> |

| Project            | Evidence of increased industry ownership of EMS   |
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|                    | <p><b>Involvement of industry in delivery</b></p> <ul style="list-style-type: none"> <li>• The five regional workshops were delivered and facilitated by industry champions with a high level of interest (92 participants).</li> <li>• Seafood EMS Mentoring program.</li> </ul> <p><b>Active industry networks/industry kept informed</b></p> <ul style="list-style-type: none"> <li>• The annual Seafood EMS Summits were utilised to review the progress and provide a good focus for the EMS network.</li> <li>• Extension of outcomes and progress to industry and wider community through SSA EMS Website and EMS newsletters.</li> <li>• Presentation of outcomes at SSA Network meetings and other industry forums.</li> <li>• The Seafood EMS Pathways project has built on and extended the work already done by identifying and networking people who are committed to EMS and implementing change and providing them with the support to do so. The positive interaction has brought about a unified approach to NRM.</li> </ul>   |
| <b>CANEGROWERS</b> | <ul style="list-style-type: none"> <li>• A CEO's committee was formed at the instigation of the major players to address lack of influence/control of the steering committee. The CEO's group recommended a review of the program and supported some of the recommendations of the review.</li> <li>• Following the February 2006 Review and refocusing, more acceptance was obtained for the FMS concept and materials. CANEGROWERS also adopted some different communication strategies, with the resulting positive results reflected in the outcomes from the 2007 SRDC survey (FMS005).</li> <li>• Positive outcomes from the Industry Forum in October 2006, the 2007 SRDC, and the regional discussion series during March to May 2007 suggest that there is support for an agreed whole of industry strategy/ umbrella program.</li> </ul>  |
| <b>Sugar</b>       | <ul style="list-style-type: none"> <li>• Formation in mid 2005 of an FMS steering committee consisting of the Chief Executive Officers (CEOs) of CANEGROWERS, SRDC, AGRECON, BSES Ltd (the principal R,D &amp; E provider to the Australian sugar industry) and the Australian Sugar Milling Council. This CEOs Steering Committee took over the role of the FMS Consultative Committee in the latter part of the program to oversee the development and delivery of the FMS program.</li> <li>• 3 additional projects were directly funded by SRDC. These projects involved development of a land and water management planning process that met QLD Government requirements for sugarcane farmers to trade irrigation water (project FMS007); development of workplace health and safety guidelines for cane farmers to demonstrate compliance in these areas (FMS008); and a travel and learning opportunity for a New South Wales sugarcane farmer/ FMS Consultative Committee member to attend the global Better Sugar Initiative inaugural meeting in London and visit EMS programs in South Africa (FMS006).</li> <li>• The FMS forum on 18 October 2006 was attended by about 50 people from most of the sugar-growing regions (including Mulgrave, Tully, Herbert, Burdekin, Proserpine, Mackay, Bundaberg,</li> </ul> |

| Project                    | Evidence of increased industry ownership of EMS   |
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|                            | <p>Maryborough and NSW). Growers and millers were represented along with industry support people. In his opening address, Mr Ian Ballantyne (General Manager of CANEGROWERS) acknowledged that BSES, SRDC, ASMC and CANEGROWERS were working together to support the FMS concept for the sugar industry and stated that the SRDC/ AGRECON-developed Sugar FMS Tools "...had turned out not too badly." Towards the end of the workshop, it was clear that there was general support for the Sugar FMS Tools to be evaluated across regions.</p>   |
| <p><b>Chicken meat</b></p> | <p><b>Industry delivery</b></p> <ul style="list-style-type: none"> <li>• Growers were selected to undertake training in being facilitators of future workshops in their states and to be able to undertake on-farm auditing of EMS. Enabling growers to become auditors in their own field encourages a sense of ownership within the industry, where peer review will promote EMS adoption. Industry trained auditors will provide a positive context for on-farm auditing, where the negative stigma of regulators forcing EMS on growers is minimised.</li> <li>• Participants in these courses were chosen on the basis that they were future trainers to deliver the course. Conducting the courses in NSW, WA, SA and VIC was imperative to nationally introducing the EMS Guidelines and that any changes to the training package to meet individual state needs could be made. From these workshops a small steering committee of 2 – 4 people in each state were formed to oversee the state implementation of EMS for meat chicken farms.</li> </ul> <p><b>National coordination</b></p> <ul style="list-style-type: none"> <li>• Industry has a more unified approach to EMS on a national scale. The states were able to have input into the process at the National launch workshops and this has continued via the roll-out of training in each state.</li> <li>• Publicising the National EMS Training Package to industry and tailoring the package for all states via state workshops and auditor training courses.</li> </ul> |
| <p><b>Eggs</b></p>         | <p><b>Incorporation into industry structures</b></p> <ul style="list-style-type: none"> <li>• Development and implementation of EMS through ECA, leading to compliance by approximately 60% of egg businesses throughout Australia. With EMS incorporated into the existing quality assurance framework, EMS is now an integral part of the mainstream business of egg enterprises, has ensured the continuation of EMS post-Pathways. Continuing the adoption of EMS post-Pathways will be very straightforward now that is an integral part of the ECA framework.</li> <li>• Major reviews are envisaged every five years or more often if justified. – intent to maintain.</li> <li>• High participation rates at the National Regulatory Workshop, the Environmental principles workshops and the ECA EMS Update workshops.</li> <li>• Positive feedback from the workshops, many participants identified areas of change to improve their operations and get on the pathway to continual environmental improvement. This was further reflected</li> </ul>  |

| Project | Evidence of increased industry ownership of EMS   |
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|         | <p>in the demand for more technical information, which led to the development of a series of fact sheets for egg businesses on how to better manage and improve the profitability of by-products. This also instigated further funding from AECL for select producers to establish composting facilities via a group demonstration project.</p> <ul style="list-style-type: none"> <li>• ~60% of egg businesses, representing ~75% of the flock expected to be accredited as ECA assured and operating to industry best practice by May 2007. One reason for this is most likely driven by the positive messages on adopting an industry led EMS being delivered by the egg industry – the AECL.</li> </ul>   |
| Rice    | <p><b>Industry advocates</b></p> <ul style="list-style-type: none"> <li>• Industry leaders involved in lobbying with key decision makers are strongly advocating the ECP as a mechanism to create confidence in the future of the industry and demonstrating sustainability.</li> </ul> <p><b>Industry co-contribution</b></p> <ul style="list-style-type: none"> <li>• \$1,125,000 of in-kind contributions annually from landholders, regional organisations and agencies for development and implementation of ECP. A four fold return on the federal government’s support of an average of \$300,000 per year under the Pathways to Industry EMS program.</li> </ul> <p><b>Industry led direction</b></p> <ul style="list-style-type: none"> <li>• To commence the development of the higher levels, an industry steering committee was established to oversee the strategic direction of the program and a working group for focus on developing the detail behind the levels.</li> <li>• The agreed process of developing the higher levels includes: Review current program to address any gaps going forward; Develop industry agreed standards for Level’s 4 &amp; 5; Develop industry agreed benchmarks for each pathway; Develop industry agreed criteria to assess opportunities; Development of opportunities, solutions and options landholders could implement to achieve benchmarks; Landholders to commence trialling Level 4 &amp; 5; Review of program including trial response and outcomes.</li> </ul> <p><b>Industry consultation - input</b></p> <ul style="list-style-type: none"> <li>• ‘Emerging Opportunities Forum’ and scoping workshop held following the forum to achieve the following outcomes: 1. Review forum outcomes 2. Review program principles and foundation 3. Create industry and regional ownership 4. Create a vision for the future 5. Develop standards to Levels 4 &amp; 5 6. Develop a process for developing Levels 4 &amp; 5 7. Develop a delivery plan.</li> <li>• Industry Agreed Standards reviewed by the ECP working group for each level of the Environmental Champions Program, discussed in terms of expectations of landholder/farm business for recognition at each level of the program.</li> </ul> |
| VFF     | <ul style="list-style-type: none"> <li>• The VFF-Victorian Government EMS Policy Group has evolved to become the Victorian EMS Steering Committee which has overseen the VFF EMS project. Membership of the committee has been expanded to include wider industry representation and participation from the Environment Protection Authority, Landcare Australia Ltd;</li> </ul>  |

| Project | Evidence of increased industry ownership of EMS   |
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|         | <p>the VCMC and CMAs.</p> <ul style="list-style-type: none"> <li>• The VFF President, Simon Ramsay, VFF Board and staff are well-briefed on EMS and the VFF project.</li> <li>• The VFF EMS Project Steering and Technical Committees have broad stakeholder membership have operated effectively. These committees routinely met about 4 times per year and provided the governance and technical expertise for industry-government management of EMS activity in Victoria.</li> </ul> <p><b>Promotion by VFF</b></p> <ul style="list-style-type: none"> <li>• EMS and the VFF EMS project were the focus of the VFF's Great Aussie Breakfast in Melbourne's Federation Square with the theme of Farmers: Frontline Environmentalists, in October with about 6,000 city people partaking.</li> </ul> <p><b>Within industry support (member orgs)</b></p> <ul style="list-style-type: none"> <li>• Four DairySAT Professional Development programs (10-20 participants) were conducted in April-May 2007 with UDV (VFF Dairy group) office-bearers and others (eg Dairy Australia Regional Development Program personnel).</li> <li>• A similar EMS Professional Development program is being conducted with the VFF Grains group based on EBMP and/ or Emapp with up to 10 groups (10-20 participants) at locations across the Victorian grain growing regions.</li> <li>• The VFF Livestock Council personnel will participate in a similar EMS Professional Development program.</li> <li>• The VFF Chickenmeat Group has been very proactive in relation to EMS. About 50% of Victoria's producers have now done EMS training.</li> </ul> |
| Wine    | <p><b>Industry agreed strategy</b></p> <ul style="list-style-type: none"> <li>• Winemakers' Federation of Australia, the Australian Wine and Brandy Corporation, wine industry research and development organisations and wine company representatives have been developing 'Strategic Directions for the Australian Wine Industry' to replace 'Strategy 2025'. It references AWIS as the national industry's environmental stewardship programme, plots the future for AWIS and recognises industry's long-term commitment and ownership.</li> </ul> <p><b>Industry co-contribution</b></p> <ul style="list-style-type: none"> <li>• Impossible to quantify the entire industry contribution, especially by growers participating in the AWIS survey, and internal costs borne by participating companies in reviewing, tailoring, and implementing the programme in their own spheres of operation. In-line with in-kind contribution guidelines, industry participation in the 23 AWIS workshops has not been quantified, but remains a significant indication of ownership of the programme.</li> </ul>   |
| Grains  | <p><b>Industry body support</b></p> <ul style="list-style-type: none"> <li>• Grains Council of Australia Policy Council and Board, and the GRDC agreed to the project, and supported by the state farming organisations in late 2005, then ratified as Industry Policy during late</li> </ul>   |

| Project         | Evidence of increased industry ownership of EMS   |
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|                 | <p>2006.</p> <ul style="list-style-type: none"> <li>• Presentation to GRDC and GCA Boards and senior staff in October 2006 further strengthened industry ownership of the outcomes from the project. The GRDC now see the project and the outputs from this work as an effective means for evaluating many of their investments in groups and projects, and to measure the adoption of best farming practices.</li> <li>• Presentations at many Industry events, including a 90 minute session at Grains Week 06, the Industry Leaders Forum in 07, and GRDC advisor and grower updates in both 2006 and 2007, have re-affirmed that the approach being taken is acceptable and encouraged by the Industry.</li> </ul> <p><b>Grower support</b></p> <ul style="list-style-type: none"> <li>• Surveys of attendees, comments and responses from the Updates in the Northern Region (eg 74% attended the session at Dubbo and it ranked 3.9 out of 5 at Goodiwindi).</li> <li>• Survey of 90 grain handlers and marketers at all levels (from large export marketers to small stock feed purchasers), found acceptance for the project's approach, there is little or no demand for environmentally assured grain at present or market signal (price premium) for such grain.</li> <li>• Further survey of grain companies, processors, manufacturers and retailers, representing the post-farm value chain of the industry, found acceptance of the project's approach as a valid means for showing appropriate environmental management, and agreed to work further with the project to develop other uses for the database component, notably in areas of traceability.</li> </ul> |
| <b>Wool</b>     | <ul style="list-style-type: none"> <li>• Far greater ownership by the industry toward environmental stewardship. This is evidenced by the fact that AWI and MLA did not have a module on environmental issues in their 'Making More from Sheep' program until the early results of the Wool Pathways project. As a result, such a module has been prepared.</li> <li>• AWI has set up a new initiative to stimulate the production and marketing of eco / organic wool.</li> </ul>  |
| <b>Red meat</b> | <ul style="list-style-type: none"> <li>• Increased scrutiny of the environmental performance of the red meat industry by the Australian community has highlighted the need for environmental assurance.</li> <li>• Peak councils, industry representatives and MLA executives are increasingly demanding data, case studies and systems which can assist the industry defend its environmental credentials.</li> <li>• Converting an increased interest in environmental assurance into an increased ownership of environmental assurance will depend on the success of Landleader and the LPA QA environmental module.</li> <li>• Protecting the integrity of the grazing industry has now become a core activity of peak councils and MLA so it is likely that the industry will continue to invest in improving environmental assurance.</li> </ul>  |
| <b>Organics</b> | <ul style="list-style-type: none"> <li>• An OFA facilitated Farmer Reference Group of certified farmers from across Australia are meeting to identify checklists, planning and monitoring tools that best reflect the needs of the organic industry</li> </ul>  |

| Project          | Evidence of increased industry ownership of EMS   |
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|                  | <p>given that a planning and certification system is already in place. The farmers continue to meet to explore, trial and discuss options with their colleagues and are a good indicator of industry ownership of the process.</p>  |
| <b>QFF</b>       | <p><b>QFF</b></p> <ul style="list-style-type: none"> <li>• The QFF FMS Framework identified the establishment of a member forum to promote communication between members/programs, identify and foster opportunities for coordination and review trends and emerging issues. The QFF FMS Committee (later known as the FMS Taskforce) was formally established as a working committee of the QFF Council as per decision at Council meeting held in December 2005. 3-monthly Taskforce held between January 2006 and April 2007, coordinated and followed up by the QFF FMS project officer.</li> <li>• Industry feels the coordinative approach provides a proactive and collective response to drivers being experienced.</li> <li>• Ownership – increased responsibility felt for coordinating activities/industries eg. coordination expanded to include Australian Prawn Farmers Association and Flower Association of Queensland Inc. The Queensland Turf Producers Association (QTPA) -not a QFF member but requested assistance.</li> <li>• Extra activities (?) added eg. QFF conference (Enhancing Sustainable Agriculture Conference and Trade Show) held March 2006 to showcase industry leadership, a section devoted to presentations on FMS programs.</li> </ul> <p><b>NGIQ</b></p> <ul style="list-style-type: none"> <li>• NGIQ's approach to FMS program coordination with NGIQ's EcoHort is being adopted nationally in the nursery production industry.</li> </ul> <p><b>Dairy</b></p> <ul style="list-style-type: none"> <li>• QDO promoted its FMS program at various forums including the joint QDO/Subtropical Dairy Program Annual Conference, the 6th International Conference on Knowledge, Change and Information (held in Florence, Italy), and the New Generation Dairy Farmers Forum.</li> </ul> |
| <b>TFGA</b>      | <ul style="list-style-type: none"> <li>• The development of a Tasmanian Property Management Systems (PMS) Framework. While principally an initiative of TFGA, the Tasmanian Government and the three NRM Regions with support from the Australian Government, the PMS Framework has built on the partnerships and learning's of FarmSAT and has received input from a range of industry groups.</li> <li>• Final draft stage the PMS Framework proposes a three-staged approach to the development of PMS based on how much of the Plan-Do-Check-Review management systems process is completed. FarmSAT is recognised as a Level 1 (first stage) achievement within the Tasmanian PMS Framework.</li> </ul>  |
| <b>WAFarmers</b> | <ul style="list-style-type: none"> <li>• Industry contribution through the forum and the Steering Committee.</li> </ul>   |
| <b>PGA</b>       | <p><b>Producer input</b></p> <ul style="list-style-type: none"> <li>• Grass-roots development of the proposed WA pastoral Rangecare</li> </ul>  |

| Project | Evidence of increased industry ownership of EMS  |
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|         | <p>system has given pastoralists the chance to become proactive in addressing the pressures facing their industry. It has also resulted in a high level of ownership and support for the proposal and has a greater chance of being accepted and applied.</p> <ul style="list-style-type: none"> <li>• PGA membership across the pastoral industry is high with 85% of pastoralists as members. All pastoralists (member and non-member) were invited to participate.</li> <li>• Pastoralists who participated in the workshops indicated a desire to be the lead agent in further development of the Rangecare system, with support an input from experts and liaison with government agencies as required.</li> <li>• Many pastoralists returned to participate in the second round of workshops to discuss the Rangecare concept and progress the idea further and have indicated that they want to be a part of any future development. Less negative comments and feedback were received by the project staff as the process continued.</li> <li>• Presentation was used to facilitate comment and pastoralists input about the positives and negatives of the current system and what should be incorporated in a revised system to assess pastoral lease management with the view to improving environmental management.</li> <li>• Rangecare was developed by pastoralists within the workshop process; participants agreed that the industry should become proactively involved in the development of the environmental assessment criteria likely to be introduced with proposed rolling lease tenure title anticipated in 2015.</li> <li>• Workshops and communications gave the industry the opportunity to define their vision for the future of environmental management and reporting processes related to the new lease renewal system.</li> </ul> |

## Increased capacity within agricultural industries

| Project      | Evidence of increased capacity within agricultural industries  |
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| Dairy        | <p><b>Resource input</b></p> <ul style="list-style-type: none"> <li>• NRM capacity within the dairy industry was significantly enhanced by the employment, through the NLP Sustainable Industries Initiative Programme, of a regional DfT coordinator in each dairy region beginning in Feb 2005. The positions are industry based with each coordinator reporting to both their Regional Development Program Board and the Dairy Australia Program Manager for NRM. With the exception of Subtropical Dairy all the positions are part-time, with an average time allocation of 8 days/month.</li> <li>• The project has helped build a strong network of NRM and industry stakeholders in all regions as evidenced by the number of regional NRM committees, DairySAT facilitator networks and collaborative delivery partnerships. The regional Dairying for Tomorrow Coordinators, funded through the NLP Sustainable Industry Initiatives programme played a key role in facilitating this project. It would not have been as successful without their assistance.</li> <li>• Milk companies have become active partners in the delivery of DairySAT, representing a major shift in direction.</li> </ul> <p><b>Regional ownership</b></p> <ul style="list-style-type: none"> <li>• All regions now have identified Pathways to EMS and some regions are successfully leveraging further funding for implementation.</li> <li>• By enabling regions to design and deliver their own programs, regions have developed a high level of ownership and pride in their achievements. It has also built capacity within regions to design and deliver successful on farm change programs. Project facilitators were active participants in DfT On the Ground Information exchange workshops and communication networks and took the opportunity to share ideas and success stories.</li> </ul> <p><b>Producer capacity – decision making ability</b></p> <ul style="list-style-type: none"> <li>• Opportunity for the dairy industry to pilot the implementation of DairySAT in all Regional Development Programs and to develop a best practice process to help farmers make decisions concerning on-farm environmental improvements.</li> </ul> |
| Horticulture | <p><b>Resource input</b></p> <ul style="list-style-type: none"> <li>• 14 facilitators engaged to manage grower groups in different areas. Bringing experience with TSC, initial development of Hort for Tomorrow and a number having either environmental or quality assurance experience.</li> </ul> <p><b>Industry preparedness</b></p> <ul style="list-style-type: none"> <li>• Industry now has a nationally recognised set of Guidelines for voluntary adoption of environmental assurance when necessary.</li> </ul> <p><b>Ability to leverage/obtain further support</b></p> <ul style="list-style-type: none"> <li>• As a direct result of the Natural Heritage Trust funding, HAL was successful in leveraging further external funding through the National Landcare Program Sustainable Industries Initiative.</li> </ul>   |

| Project | Evidence of increased capacity within agricultural industries  |
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|         | <p><b>Industry strategy</b></p> <ul style="list-style-type: none"> <li>• The Horticulture Natural Resource Management (NRM) Initiative began in April 2005 targeted at emphasising horticulture’s role as a responsible manager of resources and building on knowledge of the industry’s responsibility to NRM within a catchment context. It is due to finish January 2007.</li> <li>• The key outcomes are the development of a national Horticulture NRM Strategy, and the establishment of a number of Industry NRM Groups around Australia to design, record and initiate complementary programs for on-farm change.</li> </ul> <p><b>Integration with other industry programs</b></p> <ul style="list-style-type: none"> <li>• Horticulture Natural Resource Management (NRM) Initiative is focused at the catchment scale and therefore compliments the property level guidelines developed as a part of the EA project and both fall underneath the banner of Horticulture for Tomorrow. Thus, the original Horticulture for Tomorrow project was expanded to not only include the EA and NRM components, but also future environmental programs as they come about in the future. Therefore, it has become the core component of horticulture’s environmental agenda.</li> <li>• Guidelines and auditable code have been developed to integrate as much as possible with other systems, and as a result of this work strong links have been built with Freshcare, Enviroveg and growers have also used the guidelines to assist them gain certification to EurepGAP.</li> </ul>                         |
| Pork    | <p><b>Producer capacity</b></p> <ul style="list-style-type: none"> <li>• There are sufficient pig producers with a functional understand of management systems and APL’s ESP project to supply any possible domestic or export market demand for pork farmed to auditable and/or demonstrable environmental performance. Furthermore, a number of Australian pig abattoir and feedmills have the capabilities to extend EMS throughout the production chain if the market demand existed.</li> <li>• Concerns remain in the pork industry regarding the financial and administrative burden associated with EMS; APL is seeking to manage the operation of its EMS program so as to minimise these burdens.</li> <li>• EnviroCheck has enhanced the industry’s capacity to identify environmental risks while the National Guidelines and BMP research is providing sound approaches to mitigate risk.</li> </ul> <p><b>Capacity for adoption due to integration</b></p> <ul style="list-style-type: none"> <li>• Summary of EMS Adoption Potential - Approximately 30% of the pork industry, by production, has participated in APL’s ESP trials. If these participants commit their entire operations to the ongoing EMS program, and TopPork also signed on, then it would be feasible to cover 40% of the industry. To cover the approximately 70% of the industry involved in APIQ another 500 producers would need to participate. APL will rely heavily on its APIQ facilitators and auditors network to reach these producers assisted by promotion through its usual communication channels.</li> </ul> |

| Project      | Evidence of increased capacity within agricultural industries   |
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| Seafood      | <p><b>Networks and mentoring</b></p> <ul style="list-style-type: none"> <li>• Capacity building initiatives under the Seafood EMS Pathways project have included: national coordination of Seafood EMS initiatives, fostering the development of the EMS Network and increasing a better understanding of the EMS drivers and barriers amongst industry; key lesson sharing through the industry through the ongoing EMS Network, and the inclusion of learning's in the development of the Seafood EMS Resources; development of the Seafood EMS Resources to de-mystify EMS for seafood businesses and organisations; Utilisation of the Seafood EMS Mentoring program – Industry champions sharing lessons learnt developing and implementing an EMS i.e. A Tasmanian oyster farmer meets other oyster farmers around the country to discuss EMS.</li> <li>• Strengthening of relationships and expanding the seafood industry's capacity to implement self-sustaining EMSs through mentoring program, industry capacity has increased and is likely to further increase over time as mentoring and support networks continue to develop through continued government and industry collaboration.</li> </ul>   |
| Sugar        | <ul style="list-style-type: none"> <li>• FMS has become a central part of the business of industry organisations such as BSES Ltd and CANEGROWERS, as evidenced by recent publicity.</li> <li>• The capacity of SRDC to integrate economic, environmental and social R&amp;D has been enhanced by involvement in managing the FMS R&amp;D program.</li> </ul>   |
| Chicken meat | <p><b>National program – extension network</b></p> <ul style="list-style-type: none"> <li>• Move from individual states implementing best practice management programs and EMS manuals to widespread implementation of a national EMS program within the meat chicken industry.</li> <li>• Trainers and auditors are co-ordinated by the state organisations , state bodies provide a communication link between the trainers and auditors, and manage the training courses and auditing process.</li> <li>• Trainers and auditors considered as an extension resource able to disseminate information directly to the growers.</li> </ul> <p><b>Industry trained</b></p> <ul style="list-style-type: none"> <li>• Project has contributed significantly to increasing capacity of growers and processors within the meat chicken industry with 30 trainer/mentors and auditors undergoing training, has increased the knowledge base of the industry and assisted in bridging communication gaps between growers, processors, regulators and industry representatives, facilitating information sharing of EMS concepts.</li> <li>• It has given growers and industry representatives a better understanding of how their industry can impact on the environment and the community.</li> <li>• Some auditors felt they would be better off as 'mentors' to growers rather than auditors, as they found it hard to be impartial and not give advice for on-farm management, adaptation of roles will contribute to the extension of the EMS principles and provide</li> </ul> |

| Project     | <b>Evidence of increased capacity within agricultural industries</b>   |
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|             | <p>growers with on-farm support prior to EMS auditing.</p> <ul style="list-style-type: none"> <li>• Training of growers to be auditors allows for peer-reviewed and steers away from the perceived 'forced' auditing by external regulators.</li> <li>• Train-the-Trainer program allowed for the creation of auditing pro forma by the industry, to encompass industry-specific aspects of EMS.</li> </ul> <p><b>External input</b></p> <ul style="list-style-type: none"> <li>• External consultants have been involved in building industry capacity by providing technical information, train-the-trainer and auditor training.</li> </ul> <p><b>Industry cohesion - national</b></p> <ul style="list-style-type: none"> <li>• The National EMS Guidelines and Training Package that have been promoted during this project has created a single document that all states can utilise and compare themselves against for future EMS implementation. It allows for cohesion within the industry and a firm basis for future EMS action. The industry realises it is heavily regulated and scrutinised and will continually need to improve its environmental performance to maintain community support.</li> </ul>  |
| <b>Eggs</b> | <p><b>Improved skills</b></p> <ul style="list-style-type: none"> <li>• Workshop participants were assessed under the Australian Qualifications Training Framework on the qualification RTC27802A: Observe Environmental Work Practices. 89 participants of the 98 that attended the Environmental Principles for the Egg Industry workshops have received the qualification. Of the remaining 9 who have not received the competency, 7 are still eligible, but are required to provide additional information to meet all the criteria. Based on observed participation and an inspection of each participant's exercises, facilitator assesses each participant at the end of the workshop for competency. Facilitators are required to send copies of the Assessment Record Sheets from each workshop to the RTO for issue of Certificates of Competency to participants successfully completing the training.</li> </ul> <p><b>Integration</b></p> <ul style="list-style-type: none"> <li>• Industry led and developed EMS has now been incorporated into the industry quality assurance program (ECA) has provided a greater means to respond to the increased environmental pressures faced by their industry.</li> <li>• Development of the Environmental Guidelines for the Egg Industry by industry with the regulators has increased the awareness of potential environmental impacts and provided the knowledge and skills to manage these impacts through good planning, design, construction and management provided the existing ECA accredited auditors (13) with skills to improve the environmental management of egg businesses via a nationally agreed auditing program.</li> <li>• Auditing not a major cost as it is now undertaken through ECA at the producers' own expense.</li> </ul> |
| <b>Rice</b> | <p><b>More active producers</b></p> <ul style="list-style-type: none"> <li>• As a result of the ECP a greater number of landholders are willing to</li> </ul>  |

| Project | <b>Evidence of increased capacity within agricultural industries</b>  |
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|         | <p>contribute to the future direction of the industry as shown by increased participation observed at industry meetings and contributing to discussions.</p> <ul style="list-style-type: none"> <li>• Other examples of capacity, include cluster groups hosting visits from the Rural Industries and Development Corporation, Senator Nick Minchin and Malcolm Turnbull, the then Parliamentary Secretary to the Prime Minister. Landholders have also participated in farmer forums at different events.</li> </ul> <p><b>Leadership skills</b></p> <ul style="list-style-type: none"> <li>• Development and delivery of the ECP Development and Leadership Program, facilitated by the Australian Rural Leadership Foundation, consisted of 3 sessions of 3 days over a 3 month period. 23 people included a balance of ECP participants, and regional organisations (e.g. irrigation companies, rice research, SunRice staff) participated in the course, nearly every grower already taking more active roles in their communities. eg taking on coaching roles, involved in community committees, arranging farmer tours, obtaining a Nuffield Scholarship, becoming a 'depression' facilitator.</li> <li>• Regional organisation representatives have also shown increased skills etc eg one promoted to Mill Manager, a rice breeder doing television interview for Channel 10, become ambassadors for the program.</li> </ul> <p><b>Program improvement</b></p> <ul style="list-style-type: none"> <li>• Program Review to address any gaps going forward resulted in the merging the original 10 management pathways to 9 and reclassified the pathways into 'asset classes' to more clearly define link to Regional CMA targets.</li> <li>• <b>Knowledge gained</b> – gaps filled by research – recognition of gaps (methane trial and biodiversity research).</li> <li>• ECP working group have developed draft benchmarks for the higher levels of the program, developed a draft action plan to identify a range of opportunities, solutions and options landholders could implement to achieve the draft benchmarks in Levels 4 &amp; 5 of the ECP. much of 'content' of level 4 &amp; 5 is much more than 'tick the box' content and will require extensive research, new infrastructure, policy change and adaptation Landholder's trialling Level 4 &amp; 5 Twenty farmers have commenced trialling aspects of the higher levels of the ECP. These levels are designed to create innovative solutions and harness new opportunities for their farm business, their region and catchment.</li> </ul> |
| VFF     | <p><b>Producer capacity</b></p> <ul style="list-style-type: none"> <li>• Attendees claimed that the presentations enabled them to clearly understand about EMS – the meaning of the term, the background, the potential benefits, the aims and methods of the project.</li> <li>• Large numbers of landholders to have completed self assessment and action planning using existing models of EMS delivery. Landholders being directed to follow up activities that add value to their production or other farming outcomes and understand the worth of EMS.</li> <li>• Using EMS processes, farmers have the capability to develop action</li> </ul>   |

| Project | <b>Evidence of increased capacity within agricultural industries</b>   |
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|         | <p>plans to meet changed government or market requirements. EMS Pathways Officers to have identified and promoted the use of suitable tools to meet revised industry standards, such as from changes to industry agreed environmental standards, codes of practice and/or legal obligations.</p> <p><b>Extension training</b></p> <ul style="list-style-type: none"> <li>• Pathways Officers received training in the application of GIS mapping, including a focus on building skills for the successful utilisation of eFARMER beyond the initial software pilot period in selected regions, training aimed at providing an understanding of mapping technologies and their value to EMS implementation.</li> <li>• Pathways Officers have applied GIS mapping techniques in their EMS training activity with landholders. Pathways Officers in the North Central, West Gippsland, Goulburn-Broken and North East regions have been involved in the evaluation of eFARMER as a next-user in the pilot regions. Pathways Officers from other regions were then further trained in the use of eFARMER and encouraged to use it in their EMS extension activities.</li> <li>• DPI's extension providers to have gained skills in EMS processes that expand beyond their immediate project and are utilising those skills to capably service landholders. Programs/projects being developed that include EMS activities as part of core program deliverables.</li> <li>• In October, 2006 and on a scale from 1 to 10, Pathway Officers were asked ... "How comfortable are you NOW with your ability to deliver your role as a Pathways Officer and why?" All Pathways Officers recorded an "ability to deliver" of 6 and above – average 7.5.</li> <li>• Capacity building of Pathway Officers has been an important focus in the module. Monitoring interviews revealed that Pathway Officers were conscious of having to "work alone" in catchments and several evaluation processes have been implemented to provide support. Pathway Officers complete a reflection process with either another team member or mentor after any delivery. Pathway Officers are encouraged to share delivery or learning opportunities in other catchments.</li> </ul> <p><b>Recognition of drivers</b></p> <ul style="list-style-type: none"> <li>• The key benefits/ drivers that are currently used in communications are: To retain market access or to gain a marketing advantage; To access incentive schemes, qualify for rebates, etc related to responsible environmental management; To demonstrate good environmental practice to the community, so that improved farm and catchment environmental management can be passed on to future generations; To improve efficiencies (eg water management) that increase profits; Better understanding and compliance of legal obligations; To help prioritise on-ground, environmental works.</li> </ul> |
| Wine    | <p><b>International position and industry knowledge</b></p> <ul style="list-style-type: none"> <li>• 'Trends in Environmental Assurance in Key Australian Wine Export markets' The document makes a major contribution to the AWIS business case, highlighting current and anticipated environmental</li> </ul>  |

| Project              | Evidence of increased capacity within agricultural industries   |
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|                      | <p>assurance requirements in important markets. A three page summary was also produced to support information dissemination This document is unique in the international wine industry, and has been picked up by New Zealand, Canadian and American industry groups.</p> <ul style="list-style-type: none"> <li>• Capacity improvements have occurred through AWIS by utilisation of supply chain ‘pull through’. The programme has identified ‘pull’ factors at the retail and export market regulator end of the supply chain. In responding to these factors, AWIS has sought to enhance wine company supply contract requirements between companies and contract growers to apply the same ‘pull’ factors to growers as are being felt by wine companies.</li> </ul> <p><b>Industry preparedness</b></p> <ul style="list-style-type: none"> <li>• By gradually building industry awareness of anticipated market requirements related to environmental assurances, the industry is in a better position to deal more quickly with these requirements when they arise. As a result of the AWIS systems map, there is also improved understanding of industry resources available to help respond to these requirements, including knowledge of existing best management practice guidelines and activities already being implemented by individual wine companies and regional associations.</li> </ul> |
| <p><b>Grains</b></p> | <p><b>Industry knowledge</b></p> <ul style="list-style-type: none"> <li>• The scientific and market research projects have more clearly demonstrated to the market, the community and government, as well as the industry as a whole, the actuality of the need for EMS in any form. The results will assist the industry and government to better serve the needs for any environmental assurance by pursuing an approach that will be more acceptable and useful to grain producers.</li> <li>• The scientific review paper developed in the project has stood up to peer review, and can now be published in a reputable journal. The paper was presented at the Fenner Conference on the Environment in Canberra in November 2006. This work included an analysis of preferred and desired practices and their linkages to environmental impacts, and has been accepted as valid by agricultural scientists, the GRDC and farmers across Australia.</li> </ul>  |
| <p><b>Wool</b></p>   | <p><b>Linkages</b></p> <ul style="list-style-type: none"> <li>• Establishment of close linkages between the wool, grains and red meat industries in relation to environmental management on broadacre properties.</li> </ul> <p><b>Industry knowledge - preparedness</b></p> <ul style="list-style-type: none"> <li>• An improved understanding of the key environmental hazards and animal welfare threats to the industry. These have been translated into best practice standards for natural resource management; chemical management; livestock management; and down-stream processing.</li> <li>• An assessment of key environmental hazards and animal welfare threats to the industry, from a customer and community perspective.</li> <li>• A far greater understanding of the requirements of many key</li> </ul>   |

| Project                | Evidence of increased capacity within agricultural industries  |
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|                        | <p>audiences for an Environmental Stewardship system, specifically: major customers of Australian wool internationally; local audiences such as Government; CMAs; banks; environmental groups; farming organisations; and grower groups.</p> <ul style="list-style-type: none"> <li>• Knowledge of the best process to collect data from farmers in regard to farming practices and aspirations in relation to the environment, animal welfare and chemical usage.</li> <li>• A positive response to the data collection trials and support from industry.</li> <li>• The wool industry is far more prepared to engage in environmental stewardship initiatives as a result of the positive attitude to the LandLeader trials.</li> <li>• The potential to exploit niche marketing opportunities and to use environmental stewardship as a sound marketing platform.</li> <li>• The ultimate outcomes, when more fully implemented, provide the wool industry with a firm basis to seek improved farm practices and thus better environmental (and animal welfare) outcomes along with, for the first time, a clear picture of the industry's environmental and animal management credentials - an important risk management strategy for the industry or an exciting new marketing platform.</li> <li>• A greater capacity for the wool industry to continue with an environmental stewardship program – including the development of an action plan for this to occur and development of a module on environmental issues in their “More Money from Sheep” and AWI's recent initiative into eco / organic wool.</li> </ul> |
| <p><b>Red meat</b></p> | <p><b>Extension program in place</b></p> <ul style="list-style-type: none"> <li>• Producers who adopt the LPA QA environmental module will continuously improve their production practices. The linkages between MLA's educational and awareness programs and the LPA QA modules will ensure that producers hear about the production practices, learn about the production practices and then are audited against those production practices.</li> </ul> <p><b>Awareness strategy</b></p> <ul style="list-style-type: none"> <li>• The Landleader survey should raise awareness of environmental performance and the suite of BMP available in More Beef form Pastures and Making More from Sheep. It is anticipated that this awareness raising exercise will drive some adoption of management change in the medium term.</li> </ul> <p><b>Industry ability to communicate</b></p> <ul style="list-style-type: none"> <li>• The environmental BMPs developed in the LPA QA environmental module and Landleader have provided the red meat industry with the capacity to engage in the catchment BMP debate and catchment managers have expressed an interest in the BMPs.</li> <li>• Landleader has given the industry the capacity to benchmark and monitor change in environmental BMP over time.</li> <li>• Future Landleader surveys will capture practice change stimulated by government and industry programs.</li> </ul>  |

| Project                | Evidence of increased capacity within agricultural industries  |
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| <p><b>Organics</b></p> | <p><b>Industry knowledge gained</b></p> <ul style="list-style-type: none"> <li>• The desk-top review of the national organic program by the team of EMS/organic experts, simulated reflection of the program in a range of areas including those unrelated to the task at hand, eg. some standards were considered “thinly worded” opening opportunities for interpretation and inconsistencies, some standards described best management practice while others did not. Prefacing standards in the context of Guiding Principles was considered a useful approach by the non-organic committee members with potential application for other industry sector EMS programs.</li> <li>• The tools developed reflect knowledge gaps as identified by the industry, a start to capacity building, and capacity building restricted by available funding resources. The following tools developed were identified by the desk top review and endorsed in principle by the workshop indicating a good show of industry responsiveness: guidance documents to assist farmers in preparing Organic Management Plans which include environment management plans; guidance documents describing best management practice; documentation and record keeping systems; training programs for inspector/auditor training.</li> <li>• Whilst recognizing that the National Standards for Organic and Biodynamic Produce already has a range of standards addressing Water, Landscape, Soil, Biodiversity and Energy issues, the workshop participants recognised the need to align key national NRM issues and some EMS processes with the national organic program.</li> </ul> |
| <p><b>QFF</b></p>      | <p><b>QFF –industry coordination</b></p> <ul style="list-style-type: none"> <li>• The QFF position has provided the necessary resource to maintain coordinative aspects and provide vitality to the FMS Framework concept.</li> </ul> <p><b>Leveraging</b></p> <ul style="list-style-type: none"> <li>• QDPI&amp;F announced the allocation of 20 Property Management Officers to support industry-led FMS programs and QFF provided input to the operating principles and guidelines for this initiative. NGIQ and QDO have each been allotted a DPI&amp;F officer to further implement their FMS programs.</li> <li>• The “Systematic Approach to Sustainable Agriculture in Queensland” project proposal developed by QFF (NHT Strategic Reserve bid for \$1.4m) was accepted in December 05 with funds available to assist participating industry to strategically implement aspects of FMS programs including incorporation of NRM aspects after consultation with relevant regional NRM boards.</li> <li>• QDO negotiated with BMRG for the provision of \$90 000 worth of incentives for producers to implement action plans which deliver NRM outcomes.</li> <li>• NGIQ has obtained FarmBis support for the EcoHort course, now registered in Queensland and 50% subsidy used to off-set the cost of the EcoHort™ Guidelines for each participant</li> <li>• Growcom has secured further funding from BMRG, to deliver a market based incentive program to horticultural growers - a pilot</li> </ul>   |

| Project | Evidence of increased capacity within agricultural industries   |
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|         | <p>project based in a sub-catchment of the Burnett-Mary. Growers will be encouraged to apply for a rebate on associated farm expenditure, where they can demonstrate an improvement in the quality of water that leaves their property. BMRG will provide the pool of money to be paid to growers, and will also fund Growcom's staff costs to deliver the program.</p> <p><b>On-ground capacity</b></p> <ul style="list-style-type: none"> <li>• QDO, NGIQ and Growcom have had the opportunity to develop, trial and deliver FMS programs tailored to meet producer needs in two Queensland regions.</li> <li>• QDO's FMS methodology was already in place but due to lack of resources, had not been progressed in the Burnett-Mary region prior to this project.</li> <li>• QDO priority issues as effluent management, soil fertility and health, energy usage in the dairy and water use efficiency.</li> <li>• Provided NGIQ with the first opportunity to place technical assistance in the field and to focus on grower engagement since the appointment of the Industry Development Officer in 1997.</li> <li>• The high (25%) participation rates in EcoHort workshops in South East Queensland has been due to the Farm Management Systems Officer contact at the business site and technical support (credibility).</li> <li>• The Growcom position funded under Pathways provided the opportunity for the on-ground trialling of the Growcom FMS program.</li> </ul> <p><b>Industry confidence</b></p> <ul style="list-style-type: none"> <li>• For NGIQ and Growcom, this has demonstrated to the respective industries that the FMS program concept is achievable.</li> </ul> |
| TFGA    | <p><b>Industry resources trained</b></p> <ul style="list-style-type: none"> <li>• Five facilitators have been trained and worked with FarmSAT. Two of these facilitators are now employed in other agricultural sectors.</li> </ul> <p><b>Producer capacity – knowledge, awareness</b></p> <ul style="list-style-type: none"> <li>• Facilitators have provided over 450 pieces of additional information to producers on a request basis.</li> <li>• Information provided is not limited to NRM issues. The facilitators have responded to virtually any request for additional information from the toolkit and, where necessary, additional research has been undertaken and information forwarded to producers as it became available.</li> <li>• The most popular document was the NRM regions, contacts and priorities brochure (63 copies) created by FarmSAT to address producer need for information on the regional bodies.</li> <li>• Other documents frequently requested by producers included Workplace Safe: Take Control of Safety on your Farm (39 copies); Growlocal (A Guide to local native plants suitable for gardens in the Cradle Coast Region) (33); Coastal Weeds of Cradle Coast Region (31); ChemCert course dates (26); Species For Profit: A Guide for Tasmanian Pastures and Field Crops (26); Landcare funding opportunities (25); AgSafe wallet (23); Managing Tasmanian</li> </ul>   |

| Project   | Evidence of increased capacity within agricultural industries  |
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|           | <p>cropping soils – A practical guide for farmers (15); Gorse National Best Practice Management (12).</p> <p><b>Industry knowledge</b></p> <ul style="list-style-type: none"> <li>• Producers completing FarmSAT were asked to identify the top three ways they accessed information, this information is useful when considering communication and extension strategies.</li> <li>• A report investigating the on farm financial benefits of environmentally responsible farming practices was commissioned and completed in Sept 2006.</li> <li>• The project discussed and documented responses on a number of other issues with producers as part of the FarmSAT visit –greater understanding of producer priorities and information access methods.</li> </ul> <p><b>Tool available</b></p> <ul style="list-style-type: none"> <li>• The industry now has an effective and well tested self assessment tool and an extensive toolkit that have been found to suit a broad range of farming activities including; traditional enterprises such as fruit, vegetable, beef, wool and lamb production, new and emerging enterprises such as wine grapes, herbs, organics, cut flowers and deer as well as hobby farmers and horse enthusiasts.</li> <li>• A single tool and toolkit with such wide applicability represents a considerable increase in capacity for agricultural industries to progress EMS on farm.</li> <li>• Simplicity of the tool and depth of additional information to support the tool provides an ideal means of introducing producers to issues associated with NRM.</li> <li>• The development of a prototype electronic version of FarmSAT again increases the delivery opportunities for the tool. The electronic version of FarmSAT includes linkages to relevant tools and legislative summaries as well as automatically producing the Farm Action Plan; provides an option for producers to work through FarmSAT without the need for a facilitator and also provides the producer with ongoing access to reference materials. This development extends the application of FarmSAT from an introductory level tool to one that can be used by producers as an annual monitoring or stock take activity and at the same time provide access to references as need demands.</li> </ul> |
| WAFarmers | <p><b>Producer awareness / knowledge</b></p> <ul style="list-style-type: none"> <li>• 13 workshops to 330 producers and industry participants has generated a higher awareness of EMS principles. Information and individual follow-up was provided through letters and emails. The direct costs for each workshop attendee was less than or equal to \$40 per head.</li> <li>• The Forums, workshops and farm days have been the means of raising awareness of EMS in WA. This improved understanding includes the benefits of EMS implementation to a farming business, the future prospects of market drivers being instigated and the possible costs in terms of time and money. Measuring the effectiveness of these methods is difficult in the short term, but the responses to our evaluation question regarding awareness of EMS</li> </ul>   |

| Project    | <b>Evidence of increased capacity within agricultural industries</b>   |
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|            | <p>indicates that around 58% of workshop participants had some previous knowledge. The survey taken at the Gingin workshop showed that everyone had an increased understanding of EMS by the end of the workshop and 22% responded that they would like to know more.</p>  |
| <b>PGA</b> | <p><b>Producer awareness/adoption</b></p> <ul style="list-style-type: none"> <li>• 9 workshop participants have reportedly commenced or implemented some form of EMS and a further 27 indicated a willingness to consider implementing an industry specific form of EMS. Some of those who have implemented an “EMS” were supported through a previous Gascoyne-Murchison Strategy project.</li> </ul> <p><b>Industry knowledge</b></p> <ul style="list-style-type: none"> <li>• Members of the pastoral industry involved in this project have given a range of views about the process of evaluating and auditing of an EMS style program. By developing a simple system to demonstrate sustainable management thus improving lease tenure conditions and security of access to natural resources without interference, pastoralists may accept limited external audits. It is important to note that the costs of these audits needs to remain low and that they not be too frequent, with the requirements contributing to improved management at an operational level.</li> </ul> |

## Enhanced working relationships between industry and governments

| Project | Evidence of enhanced working relationships between industry and governments   |
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| Cotton  | <p><b>With regional NRM bodies</b></p> <ul style="list-style-type: none"> <li>• BMP audits subsidised by the Gwydir CMA, as an incentive for BMP adoption.</li> <li>• Employment of a cotton BMP Officer with funds provided by the Namoi CMA.</li> </ul> <p><b>State government</b></p> <ul style="list-style-type: none"> <li>• The industry's BMP Manual has been lodged (October 2006) under Queensland's Farm Management Systems process for approval as an accredited industry scheme for the purposes of the Water Management Act. While no formal decision has been made, it is understood that the application is likely to receive approval in the near future. It is anticipated that accreditation could have the following positive consequences: gives the BMP Program and participants credibility; enhances the reputation of the program; recognition of producers' voluntarily efforts towards managing their risks; transparency in dealing with the government as they respond to pressure for more regulation; ensure that BMP complies with minimum legislative requirements i.e. growers will have the confidence that if they are doing BMP, then they are on the 'right side' of the law; set a benchmark against which any further changes to these minimum legislative requirements can be assessed; demonstrate to government that existing farming practice is sustainable (according to best available science); provide an agreed and established benchmark of practices and performance for those other stakeholders interested in the environmental performance of the cotton industry (eg. environmental non-government organisations), which should further assist the ability to demonstrate, collectively as an industry, that cotton farmers are responsible stewards; reduce the cost burden of high government regulation of compliance on the grower; these potential benefits will enhance the uptake of the BMP Program, due to it being seen as a better option than an regulatory approach (noting of course the issue highlighted below regarding the need to also identify specific on-farm benefits to encourage adoption; that is, still need to demonstrate a specific connexion between process and outcome).</li> </ul> |
| Dairy   | <p><b>State government</b></p> <ul style="list-style-type: none"> <li>• NSW the state agencies are the main delivery agents for the regional EMS program, Farmer Targets for Change.</li> <li>• Queensland DPI recently seconded an extension officer to assist Subtropical Dairy to deliver Dairying Better.n.Better (the Subtropical Dairy EMS program). Queensland DPI also provide technical and facilitator support.</li> <li>• In south west Victoria DPI Victoria have allocated staff to deliver DairySAT as part their dairy action plan. DPI dairy extension officers in Victoria provide valuable technical support and technical workshops on request for the GippsDairy and WestVic, EMS programs.</li> </ul>  |

| Project      | Evidence of enhanced working relationships between industry and governments   |
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|              | <ul style="list-style-type: none"> <li>• South Australia does not have a free extension service but SARDI employees have provided in-kind contributions to the DairySA NRM programs.</li> <li>• In Tasmania, state agencies have been heavily involved in the design and delivery of industry NRM programs.</li> <li>• Western Australian dairy extension staff also strongly support the delivery of DairyCatch through the provision of technical advice.</li> </ul> <p><b>Regional NRM bodies</b></p> <ul style="list-style-type: none"> <li>• In a recent meeting between Murray Dairy, Goulburn Broken CMA and Dairy Australia, the issue of industry leadership of NRM programs was discussed. This issue was raised for two reasons, the first being that farmers in the Murray Dairy region did not report the same level of increase in adoption of NRM practices over the last six years as dairy farmers in other regions (DfT Survey of NRM practices on Australian Dairy Farms, 2006). The second reason was the finding of the BizLINK pilot in Murray Dairy that, for reasons associated with trust industry should lead NRM programs not CMAs. These issues were not resolved at the meeting and Murray Dairy will continue to use Goulburn Broken CMA as the lead agency for the delivery of industry NRM.</li> <li>• It has been agreed that industry will lead NRM programs in the North East CMA area of Murray Dairy, although it is likely the implementation of any NRM programs will be facilitated through Dairy Australia and the United Dairy Farmers of Victoria.</li> <li>• All the RDPs with the exception of Murray Dairy have been strongly supportive of industry EMS NRM programs. Most have provided additional financial support in addition to significant levels of in-kind. Two of the RDP EOs are also regional DfT coordinators, a synergy which is working well.</li> </ul> |
| Horticulture | <p><b>Federal funding gained</b></p> <ul style="list-style-type: none"> <li>• Horticulture for Tomorrow has been the first externally funded environmental program of this scale managed through Horticulture Australia Limited.</li> <li>• As a result of EMS Pathways Program being supported by Natural Heritage Trust in June 2004, further funding through DAFF Sustainable Industries Initiative was leveraged.</li> <li>• as a result of the Horticulture for Tomorrow program further funding was leveraged through the National Landcare Program for studying the linkages between on-farm systems and catchment targets.</li> </ul> <p><b>Communication</b></p> <ul style="list-style-type: none"> <li>• Regular Pathways Forums have allowed for collaboration between numerous DAFF staff involved in the NRM Division and industry representatives.</li> <li>• In other environmental forums many Government representatives have expressed interested in the progress of Horticulture for Tomorrow.</li> </ul>  |
| Pork         | <p><b>Cooperation with regulators</b></p> <ul style="list-style-type: none"> <li>• The EMPs were found to be helpful for completing development</li> </ul>  |

| Project        | Evidence of enhanced working relationships between industry and governments   |
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|                | <p>applications.</p> <ul style="list-style-type: none"> <li>• APL prefers a collaborative approach between industry and regulators where BMPs are developed and the information is transferred by extension techniques, including training and the use of relatively simple audits.</li> <li>• The National Guidelines have improved the relationship between industry and government and enhanced industry capacity. This has been achieved by creating an agreed standard for acceptable environmental management.</li> <li>• EMS in general, and EnviroChecks in particular, provide a mechanism to assess environmental performance and potentially to demonstrate this performance to a third party such as regulators. The Queensland Farmers Federation has developed a Memorandum of Understanding with the Queensland Government recognising EMS and/or Farm Management Systems as an alternative regulatory mechanism. Some ESP participants have informally achieved a similar outcome with their local regulatory officer.</li> <li>• APL's ESP project has provided a relatively low cost mechanism for producers to demonstrate their conformance with the guidelines.</li> <li>• Key sections of State and Federal Government are aware of APL's ESP project and the potential for EMS to be used as an alternative compliance mechanism.</li> </ul>   |
| <b>Seafood</b> | <p><b>Increased involvement with other government programs</b></p> <ul style="list-style-type: none"> <li>• Through increasing the involvement of the seafood industry in government programs i.e. pilot project to test the new EMS units, partnering with Workplace Learning Initiatives, the National Centre for Sustainability and the Victorian Government Department of Sustainability and Environment.</li> </ul> <p><b>Increased legal compliance</b></p> <ul style="list-style-type: none"> <li>• All fisheries management jurisdictions in Australia are now required by law to undertake a process of reviewing and auditing the performance of fisheries from an environmental perspective. While, EPBC places requirements on management agencies (governments) to demonstrate sustainable fisheries, it does not extend to directly encouraging individual fishing businesses to demonstrate environmentally responsible fishing.</li> </ul> <p><b>Mechanism for environmental stewardship/communication with govt</b></p> <ul style="list-style-type: none"> <li>• EMS has a major role here in that it provides the mechanism for fostering environmental stewardship at the individual enterprise level. That is, EMS provides a key mechanism for the operational delivery of sustainable management based on a philosophy of continuous improvement through the review of fishing practices.</li> <li>• The Seafood EMS Mentoring program has facilitated the building of relationships and sharing of knowledge by people involved in the development and/or implementation of Seafood EMS, including government and other stakeholders.</li> </ul> |

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| <b>Project</b>      | <b>Evidence of enhanced working relationships between industry and governments</b>   |
|                     | <ul style="list-style-type: none"> <li>Stakeholder engagement study.</li> </ul>  |
| <b>Sugar</b>        | <p><b>Program alignment with government initiatives</b></p> <ul style="list-style-type: none"> <li>The sugarcane FMS program has involved close links between CANEGROWERS, the contractor AGRECON and the Queensland State Department of Natural Resources regarding Land and Water Management Plans and land management risk assessment. The FMS Check questionnaire built into the Sugar FMS Tools is developed from the QDNR Landholders Guide. QDNR have also accepted that LWMP can be a central part of an FMS for sugarcane producers. During the course of developing the Sugar FMS Tools, SRDC funded development of a GIS-based LWMP process that complies with the QDNR requirements. QDNR accept the concept of “One-Plan” whereby farmers’ record and report under one structure on various requirements such as LWMP, vegetation management, Property Management Planning and perhaps into the future, nutrient management and other plans. FMS is seen by QDNR as the vehicle by which this “One-Plan” concept can be delivered.</li> <li>The Queensland Department of Primary Industries now has a charter to assist sugarcane farmers implement FMS through their FutureCane program. The leader of the FutureCane program, Mr Neil Sing, has advised that QDPI&amp;F are planning to provide assistance to sugarcane farmers to undertake Property Management Planning (PMP), which is part of FMS.</li> </ul>   |
| <b>Chicken meat</b> | <p><b>Content endorsed</b></p> <ul style="list-style-type: none"> <li>National delivery of the EMS training package workshops provided another opportunity for regulators to endorse the content of the training package and provide feedback on the effectiveness of the content.</li> <li>Gaining endorsement from regulators on the content material was important to ensure that the EMS training package was rigorous for each state and that the regulators understood its goals for improving on-farm sustainability. It was also important to engage the regulators to ensure they knew about the project and that the industry is trying to self regulate itself to minimise onerous environmental regulations being forced upon them.</li> <li>Government and regulatory comment on the training and auditing materials has been sought at a number of steps. A number of regulatory representatives (EPA and local council) have attended the national launch workshops and given advice and comment on the content of the materials. Positive approval and endorsement has been indicated in the feedback sheets received from regulatory participants after the workshops. This endorsement and optimistic support was encouraging and beneficial for the outcomes of the project.</li> </ul> <p><b>Communication with regulators – local, state</b></p> <ul style="list-style-type: none"> <li>State regulatory authorities (EPAs) and local government representative’s attendance at training workshops in each state was positive and enabled growers to meet the regulators. This was one of the very positive outcomes of the project, as government in each</li> </ul> |

| Project     | Evidence of enhanced working relationships between industry and governments  |
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|             | <p>state highly regulates the meat chicken industry in relation to environmental management issues. Significant progress has been made in terms of communication between industry and local and state regulators, which has had constructive outcomes for the EMS development and uptake. This was particularly evident at the national launch and the roll-out of workshops in each state.</p> <ul style="list-style-type: none"> <li>• Direct contact with the growers is beneficial in influencing future policy objectives. Growers were able to discuss issues with the regulators and gain an understanding of the regulatory framework that they are required to operate in. This enhanced communication between the regulator and grower gives the grower an understanding of how to address regulatory pressures through management actions. Relationship building allows for each party to strategically approach EMS issues, prioritise issues, and focus on activities with benefits for both stakeholders in terms of EMS adoption. This has led to regulators encouraging producers without an EMS to develop a system to address problem environmental areas on their farms.</li> </ul>   |
| <b>Eggs</b> | <p><b>Engagement of regulators</b></p> <ul style="list-style-type: none"> <li>• The National Regulatory Review Workshop conducted in the early stages of the project that led to the development of the Environmental Guidelines for the Egg Industry in Australia has developed, maintained and/or strengthened linkages between the egg industry and the state EPA's, state DPI's and local councils.</li> <li>• Representatives from the state EPA's, DPI's and local government were actively pursued to provide input into the National Regulatory Review Workshop and the Environmental Guidelines for the Egg Industry in Australia. Several key state and local government representatives, along with key industry representatives attended and actively participated in the National Regulatory Review Workshop to develop and enhance these linkages.</li> <li>• All sectors of the industry and both tiers of government (state and local) were then kept involved in the project through the development of the Environmental Guidelines.</li> </ul> <p><b>Agreed standards</b></p> <ul style="list-style-type: none"> <li>• The ultimate aim of this working relationship was to come up with nationally agreed and useable standards that would minimise regulation of industry and lead to better environmental outcomes with less community amenity complaints and natural resource impacts.</li> </ul> <p><b>Leveraging</b></p> <ul style="list-style-type: none"> <li>• Significant savings were also achieved in the running of the EMS training workshops, which were supported in part by the state departments of agriculture across the country. These savings were redirected into further promotional activities to drive the uptake of the EMS within ECA.</li> </ul> |
| <b>Rice</b> | <ul style="list-style-type: none"> <li>• Industry values the recognition from the Federal Government of the ECP for its proactive nature of going beyond compliance and tackling the challenges of environmental issues.</li> </ul>  |

| Project | Evidence of enhanced working relationships between industry and governments  |
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|         | <ul style="list-style-type: none"> <li>• ECP framework has demonstrated strong pathways and links to regional and catchment management targets.</li> <li>• Working proactively in partnership has also altered the response of regulatory authorities to landholders, and landholders to regulatory authorities due to the willingness to develop a positive relationship and a greater awareness of issues.</li> </ul>  |
| VFF     | <p><b>Communication</b></p> <ul style="list-style-type: none"> <li>• The project has enabled the development of a good working relationship between the VFF (industry) and the Australian Government which has clearly embraced VFF advice. eg Elements of the 2007/08 EMS Pathways to Sustainable Agriculture program appear to reflect sentiments contained in the VFF's keynote paper to the 2007 National EMS Pathways Forum.</li> <li>• The VFF EMS project organised and sponsored an EMS Forum (Getting up-to-date and excited about EMS – 80 attended, August 2006) - a clear demonstration of good co-operation/ communication between industry and govt.</li> </ul> <p><b>Joint action – state govt and CMAs</b></p> <ul style="list-style-type: none"> <li>• EMS is now an important issue/ program throughout the extension services of DPI, DSE and CMAs which has been well developed through the Service Provider Engagement achievements of POs.</li> <li>• A great EMS example of excellent working relationships is Emapp (Environmental management action planning project) in the Victorian Mallee. The project involves the Mallee CMA (joint funding and identification of target areas), DPI (project management and farmer training), DSE (co-investment), Landcare (engagement of farmer participants), VFF (communication), Australian Government (funding from Pathways project) trainers, consultants. It is an impressive project that to date has successfully engaged the majority of the 120 farmers surrounding the Lake Tyrell salt pan. A new series of Emapp workshops was conducted during March 2007 at Ouyen and Sea Lake in the Mallee.</li> </ul> <p><b>Module development</b></p> <ul style="list-style-type: none"> <li>• An important module outcome has been to unify and focus EMS activity within one DPI project.</li> <li>• The module has identified learning outcomes to achieve a consistency of delivery of EMS activities across the state in line with DPI's objective of statewide project delivery.</li> <li>• Pathways Officers have been familiarised with a range of environmental self-assessment tools for use with delivery. The module is both enhancing the value through facilitated delivery and assessing the worth and appropriateness of these tools.</li> </ul> |
| Wine    | <p><b>Intermediary in programme admin</b></p> <ul style="list-style-type: none"> <li>• Consultant intermediary so that industry is not dealing directly with the federal government. The Pathways to Industry EMS programme, with its current administrative arrangements, has not contributed to enhancing working relationships between industry and government.</li> </ul>  |

| Project         | Evidence of enhanced working relationships between industry and governments  |
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|                 | <p><b>Regional engagement</b></p> <ul style="list-style-type: none"> <li>The focus has not been on engaging state departments, as the government-endorsed framework that the wine industry selected to link with was the regional natural resource management arrangements. In some states, the CMAs and NRM bodies are statutory authorities under state government departments. Comments on the working relationships with these bodies have been provided elsewhere in this report.</li> </ul>  |
| <b>Grains</b>   | <p><b>Joint work – information sharing</b></p> <ul style="list-style-type: none"> <li>Collaboration with AGO into the greenhouse gas emissions from farms. A project for 2007/2008 to develop a capacity within the data reporting system to use their NCAS model and estimate level of important greenhouse emissions (nitrous oxide) from on farm fertiliser usage.</li> <li>Collaborations with NRM bodies to report environmental resource information from farm practices specific to their area targets.</li> <li>The Signposts to Agriculture and NAMS projects within the BRS want to use the data from the database to validate the indicators that they are developing within their projects.</li> </ul>   |
| <b>Wool</b>     | <ul style="list-style-type: none"> <li>Vastly enhanced linkages with DAFF.</li> </ul>  |
| <b>Red meat</b> | <ul style="list-style-type: none"> <li>The Pathways model has brought DAFF and MLA together and allowed MLA to gain a greater appreciation of the Government investment in NRM.</li> <li>MLA is rapidly realising that its environment program cannot meet the diverse NRM needs of the red meat industry, and significant collaboration is required. This experience will be beneficial as the pressure to collaborate intensifies.</li> </ul>  |
| <b>Organics</b> | <p><b>Communication – input from state and federal governments</b></p> <ul style="list-style-type: none"> <li>During this project the organic sector has established constructive working relationships between agriculture sectors, CMAs and governments. Many of these examples have been addressed previously.</li> <li>A range of EMS Pathways program managers and industry farmer groups were briefed on the progress and outcomes of the desktop study to gain feed back and confirm progress. A representative of the Australian Conservation Foundation was also briefed. Key government EMS personnel from Victoria, NSW and Canberra served on the Organic/EMS Expert Committee along with representatives from the two largest certification bodies in Australia.</li> </ul> |
| <b>QFF</b>      | <p><b>Communication and planning of actions</b></p> <ul style="list-style-type: none"> <li>QFF and QDPI&amp;F held a “Ministerial Dialogue for Action” in December 2006, attendees including the Minister and the Director General. FMS and Sustainable Agriculture were covered and follow up actions documented. The Minister for Primary Industries announced the establishment of the Sustainable Agriculture Committee, a CEO level government and industry policy coordination group. Part of the agenda for the group is to progress the roll out of FMS programs.</li> </ul>   |

| Project | Evidence of enhanced working relationships between industry and governments   |
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|         | <ul style="list-style-type: none"> <li>• QFF worked with QDPI&amp;F to hold a “Policy Forum on Strategic Sustainable Agriculture Initiatives in Queensland” on the 14<sup>th</sup> March 2006 - high level policy forum paved the way for a Concepts Paper for Sustainable Agriculture (directions for future policy alignment and investment).</li> <li>• QFF participated in the working group developing the Concepts Paper (with Qld government, Australian Government, Agforce, QFF, Regional Groups Collective and Qld Conservation Council).</li> <li>• QFF policy forum, ‘Enhancing Sustainable Agriculture’, held at Parliament House, 18th April 2007 included a session on ‘Backing good farming practices’ to identify and promote tools, activities and partnerships that are working well in assisting uptake of good farming practices. 150 attendees, including key policy makers. Queensland’s Primary Industries minister opened the event. Event sponsors include QDPI&amp;F and Land and Water Australia. QFF members provided display material. Primary producers were session chairs and discussion panel members.</li> <li>• QFF project officer participated in the steering committee developing TOR for QDNRW led evaluation of sustainable agriculture projects funded by NHT and NAP (evaluation commenced April 07, conclude August 07).</li> <li>• In March 07, QFF became involved in discussions on the sustainable agriculture component of the draft Bilateral Agreement for the future NRM program between the state of Queensland and the Australian Government.</li> <li>• Late 2005 and early 2006 QFF organised tours to farms and production chain sites for government staff (policy and operational) highlighting how industry - regional NRM partnerships are supporting FMS delivery, linking farm to catchment outcomes and activities, cooperation value chain through programs related to best practices. Incl a bus tour for the QDPI&amp;F and the National PMS Working Group.</li> <li>• QFF hosted a meeting with QNRW regarding resourcing of Land and Water Management Plans. QFF has had an ongoing input into the Queensland Government’s OnePlan reference group.</li> <li>• QFF prepared a report from the two day Intensive Industries Forum, March 2007, Bundaberg which provided an opportunity for 40 operational and policy staff from industry, government and regional NRM bodies to meet, share experiences and discuss future directions. The “Model Approach to Manage Change at the Local Level” provides a reference for designing partnership projects for sustainable agriculture at a regional level, including supporting the implementation of FMS programs.</li> <li>• At the national level, QFF attended and provided input to the September 2006 workshop of the National Landcare Program Sustainable Industries Initiative. QFF has liaised with the State Landcare Facilitator on a number of occasions regarding future opportunities for industry involvement in NLP.</li> <li>• QFF hosted a visit from Minister McGauran and senior advisers in</li> </ul> |

| Project   | Evidence of enhanced working relationships between industry and governments  |
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|           | <p>July 2006 and FMS was discussed.</p> <ul style="list-style-type: none"> <li>• QFF has participated in three EMS Forums held as part of the Pathways Program and provided advice to the National Property Management Systems Working Group on a number of occasions.</li> <li>• Dialogue with the Regional Groups Collective on FMS has had the impact of provision of resources for FMS programs which deliver NRM outcomes. The revised Memorandum of Understanding with the Regional Groups Collective provides updated directions for partnerships over the coming few years.</li> </ul> <p><b>Leveraging gained</b></p> <ul style="list-style-type: none"> <li>• As part of 2006-2007 Queensland Budget QDPI&amp;F announced the allocation of 20 Property Management Officers to support industry-led FMS programs and QFF provided input to the operating principles and guidelines for this initiative. Both QDO and NGIQ have negotiated working arrangements with the department for appointment of FMS officers.</li> <li>• QDO successfully negotiated with QDPI&amp;F regarding the appointment of a facilitator for the Maleny and Nanango Dairying Better N Better for Tomorrow groups and with Pauls-Parmalat regarding the Monto facilitator position.</li> </ul> <p><b>Recognition</b></p> <ul style="list-style-type: none"> <li>• EcoHort was launched by the Queensland Minister for Primary Industries Tim Mulherin on 30th April 2007 and the first 20 recipients of EcoHort accreditation were acknowledged at this event held at Parliament House.</li> <li>• We have included “community” in this outcome although not identified in the M&amp;E Framework as such because in Queensland, regional NRM bodies are “community based” not government or statutory entities. Other community organisations where relationships have begun to be progressed include the Queensland Conservation Council and the banking sector.</li> </ul> |
| TFGA      | <p><b>State government involvement</b></p> <ul style="list-style-type: none"> <li>• Steering committee includes state government.</li> <li>• State agency input into the project has been significant, from critical assessment of the early prototypes of FarmSAT to the current work in developing producer friendly legislative summaries.</li> </ul>   |
| WAFarmers | <p><b>Joint delivery with state government</b></p> <ul style="list-style-type: none"> <li>• The project has strengthened and enhanced the collaboration between DAFWA, the Muresk Institute and WAFarmers Federation throughout the development and implementation of the State-based framework and the workshops. Programs have been expanded and other associations maintained and extended. The co-presentation of the workshops by John Noonan of Muresk and DAFWA and Ross Hardwick of WAFarmers has allowed the further development and expansion of EMS implementation in WA.</li> </ul>  |
| PGA       | <p><b>Communication with state government</b></p> <ul style="list-style-type: none"> <li>• The final workshop held included contributions from the main state government Departments involved in the management of the</li> </ul>  |

| Project | Evidence of enhanced working relationships between industry and governments  |
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|         | <p>rangelands: Department of Environment and Conservation, Agriculture and Food and Department of Planning and Infrastructure (Pastoral Lands Board). They were able to hear from the pastoral industry the commitment to demonstrating sustainability and comment on the proposed Rangecare concept. This proposal was considered by these Departments to provide a sound framework for the development of an industry management standard.</p> <ul style="list-style-type: none"><li>• The project has provided the platform for the pastoral industry to become proactive in shaping their future and present a clear indication to the Minister for Planning and Infrastructure and the Pastoral Lands Board that pastoralists want to contribute to the ongoing sustainability and demonstration of environmental management across the pastoral enterprises of the WA rangelands.</li></ul> |

## Increased adoption of EMS in all industry sectors

| Project | Evidence of increased adoption in all industry sectors   |
|---------|--|
| Cotton  | <p><b>BMPs for supply chain</b></p> <ul style="list-style-type: none"> <li>• Engagement of additional industry sectors in the BMP concept, and the development of BMPs for those sectors. Most notably, the classing sector instigated a complete BMP Program, and by the completion of the Project members of the classers association were undergoing random audits of their compliance to the BMPs developed with the assistance of the Project. Fibre quality management BMPs were also developed for cotton growing, cotton harvesting and cotton ginning, with the latter BMPs being tested in a pilot audit of some 27 cotton gins.</li> <li>• Increased adoption has occurred in the classing sector, with all the classing facilities (bar one) undertaking an audit against the cotton classing BMPs developed.</li> <li>• In the ginning sector, the first round of pilot or test audits of the gins against the draft BMPs (which include an environmental component) commenced in mid-April 2007, with results due by mid-May, once the second round of audits has been conducted. Some 27 gins, from 7 different ginning organisations are participating in these pilot audits.</li> </ul>   |
| Dairy   | <p><b>Support from supply chain</b></p> <ul style="list-style-type: none"> <li>• Support from milk companies is established in most regions. After initial reservations milk companies are indicating increasing levels of support for DairySAT and industry EMS programs. Milk companies involved include: Pauls- Parmalat, Dairyfarmers Co operative, National Foods, Norco, Warrnambool Cheese and Butter, Bega Cheese, Murray Goulburn, Fonterra, Cadbury and Burra Foods. Some milk companies are now delivering DairySAT to farmers e.g. Bega Cheese and Warrnambool Cheese and Butter.</li> <li>• Most companies are yet to contribute financially - exceptions being Warrnambool Cheese and Butter, Murray Goulburn and Bega Cheese. Warrnambool Cheese and Butter, Parmalat, Murray Goulburn, Burra foods and Norco have committed to champion on farm EMS delivery with other milk processors.</li> <li>• Approximately 70% of Australia.s dairy farmers are delivering to milk companies actively supporting DairySAT. The remaining dairy farmers supply companies that are passive supporters (eg. promote DairySAT on their website).</li> <li>• Burra Foods and Warrnambool Cheese and Butter both supply markets that are expressing an interest in environmental QA systems. For other companies the lack of identifiable market drivers is inhibiting interest in incorporating DairySAT into the milk company QA system.</li> </ul> |
| Pork    | <p><b>Adoption by supply chain</b></p> <ul style="list-style-type: none"> <li>• APL is aware of an ISO 14001 EMS being adopted by two of Australia's top 15 pork abattoirs- QAF Meats, Corowa NSW and Perfect Pork, Melbourne, Vic.</li> </ul>   |

| Project             | Evidence of increased adoption in all industry sectors   |
|---------------------|--|
|                     | <p><b>Support /adoption led by major producers</b></p> <ul style="list-style-type: none"> <li>• During APL's <i>ESP project</i>, Tong Park and Windridge Farm were 2nd round members. TopPork, with over 23 pork producers managing 10,000 sows, is now considering bringing its entire group into the APL's EMS program at some level.</li> </ul>   |
| <b>Seafood</b>      | <ul style="list-style-type: none"> <li>• Across sub industries – not really across industry sectors.</li> </ul>  |
| <b>Sugar</b>        | <p><b>Supply chain push for adoption</b></p> <ul style="list-style-type: none"> <li>• The Mossman industry, with a milling cooperative, have agreed to try to get all their mill suppliers accredited to a 'best practices' standard. Similarly, the Proserpine milling cooperative also wants all their growers to undertake a best practice program using a manual (paper-based) FMS.</li> <li>• The Isis mill area (another cooperative mill) has an existing 'Target 100' program that seeks to improve profitability and sustainability for its sugarcane producers. They are considering the value provided by structuring this within the FMS framework. Bundaberg District CANEGROWERS are active in providing courses that are components of FMS for their members that supply the two Bundaberg Sugar Ltd mills. These courses include OH&amp;S (funded in part by SRDC under project FMS008), Land and Water Management Plans (LWMP), COMPASS and ChemCert. It is uncertain how farmers in the Bundaberg region will link their courses into an FMS program.</li> <li>• Proserpine mill for example, is apparently planning to pay a premium to cane suppliers who are involved in a recognised farm improvement program.</li> </ul>  |
| <b>Chicken meat</b> | <ul style="list-style-type: none"> <li>• This project has generally only incorporated the grower aspect of the meat chicken industry, which is a large proportion of the industry. Incorporating representatives of the breeder farms may be a future extension of the EMS agenda within the industry. This has commenced in Queensland with a workshop for company personnel, which included breeder farm managers but will need to be extended to include operations in other states.</li> </ul> <p><b>Support/adoption by processor companies</b></p> <ul style="list-style-type: none"> <li>• Meat chicken industry is controlled by processor companies, who externally contract growers and breeders for meat chicken supply. EMS has been recognised by the large processors as an integral component of the process and encourages conducting their operations in a sustainable manner with minimal impact on the environment. One such company, Baiada Poultry, which is currently one of the three major operators, has shown commitment to the EMS process, and environmental sustainability, in general by developing and implementing an EMS for all company owned sites. This EMS will be certified to AS/NZS/ISO 14001 standard to achieve a process of continual improvement. This action by the processor sets a standard for the other breeders and growers to implement EMS principles.</li> <li>• The most difficult states to reach processors were NSW and SA, where politics between the growers and processors made it problematic to promote increased EMS adoption although this is</li> </ul> |

| Project     | Evidence of increased adoption in all industry sectors   |
|-------------|--|
|             | <p>improving with time with the support of industry champions. This communication gap is trying to be bridged by performing onsite EMS training workshops for processors and their managers. It has not been possible to ascertain at this stage how many farms have actually developed an EMP or have changed practices.</p>  |
| <b>Eggs</b> | <p><b>BMPs through supply chain</b></p> <ul style="list-style-type: none"> <li>• Industry sectors covered by the Guidelines include hatcheries, pullet rearing facilities, egg production facilities (cage, free range and barn), grading floors and egg product manufacturing.</li> <li>• Project has been able to reach a number of levels within the industry, from producers to retailers.</li> <li>• The engagement of all areas of the egg production supply chain allows for a comprehensive view of the whole industry to be taken into account when developing an industry specific EMS program.</li> <li>• Additions were made to the training material produced depending on the request of the individual sectors. For example, the layer breeder and hatchery sector required the training to be applicable to both the egg and meat chicken industry to avoid duplication. However, the egg manufacturing sector did not require additional training materials as they already had suitable training tools.</li> </ul> |
| <b>Rice</b> | <p><b>Supply chain support and adoption/alignment</b></p> <ul style="list-style-type: none"> <li>• Industry Best Practice and Innovation – flagship program (1 of 3).</li> <li>• Focus on improving the environmental performance of the milling, production and marketing of Rice in Australia and internationally. This includes focus on waste, energy and water management and development of innovative solutions and products that help the industry benefit from having an environmental focus. The milling arm of the industry has also taken positive steps to implementing environmental programs based on EMS principles to align with the ECP.</li> </ul>  |
| <b>VFF</b>  | <ul style="list-style-type: none"> <li>• Across industries – not really across industry sectors.</li> </ul>  |
| <b>Wine</b> | <p><b>Delivery through processors</b></p> <ul style="list-style-type: none"> <li>• Seventy percent of the national wine grape crush is participating in AWIS. Work will continue into the future to increase this percentage and to extend the programme to cover winery environmental performance.</li> </ul>   |
| <b>TFGA</b> | <ul style="list-style-type: none"> <li>• Across industries – not really across industry sectors.</li> </ul>  |

## Increased adoption of profitable and sustainable farming practices

| Projects      | Evidence of increased adoption of profitable and sustainable farming practices  |
|---------------|---|
| <b>Cotton</b> | <ul style="list-style-type: none"> <li>• It was recognised early in the development of the BMP Program that a means of demonstrating the adoption of BMPs was required, and so a comprehensive (voluntary) audit program was established, which included: determination of minimum standards under the BMP self-assessment ranking system for each of the issues subject to a self-assessment (approximately 80 issues) (i.e what rank, or practice, was required to achieve certification); establishment of an audit office to run and manage the BMP certification process, including the establishment of the various standardised operating procedures and documents necessary (eg. reporting templates, auditor qualification criteria, complaint handling procedures etc.); and development of an auditor training course.</li> <li>• Dec 2002: 20 % of growers certified (representing approx 45 % of cotton area).</li> <li>• Dec 2006: 33 % of growers certified (293 cotton farms).</li> <li>• April 2007: 37 % of growers certified (328 cotton farms - 47 % of cotton area).</li> </ul>  |
| <b>Dairy</b>  | <ul style="list-style-type: none"> <li>• 1000 dairy farmers have completed DairySAT (12% of Australian dairy farmers) through participation in projects funded or associated with DfT: On the Ground. A high percentage of these farmers (80-85%) have developed action plans designed to address priority environmental issues on their farms, and some farmers are already reviewing action plans to ensure they continue to implement changes (farmers involved in the Subtropical Dairy . Dairying Better.n.Better- Continuous improvement program and some of the first Farmer Targets for Change participants.).</li> <li>• Results from the 2006 Dairying for Tomorrow (DfT) survey show strong links between industry-led NRM programs and adoption of environmental practices reinforcing the principles of the DfT On the Ground framework for design and delivery of industry NRM projects.</li> <li>• Dairy farmer membership of NRM groups has also increased according to the same report from 31% in 2000 to 42% in 2006. This has been cited as an encouraging result as membership is linked to an increase in; Automation of irrigation systems; Use of specific devices such as tensiometers to measure soil moisture; Nutrient budgeting; Soil testing; Implementing activities to minimise fertiliser loss to waterways; Not allowing effluent and run off from the milking shed to flow directly to paddocks; Retaining effluent on farm; Planning changes to effluent management systems; Retaining native bushland; Fencing native bushland; Fencing waterways; Implementing revegetation programs; Planning to improve management of native vegetation and waterways.</li> <li>• EMS Pathways case studies - All RDPs have contributed to at least one case study outlining productivity and environmental benefits. Several regions have contributed more than one - see Milestone</li> </ul> |

| Projects            | Evidence of increased adoption of profitable and sustainable farming practices  |
|---------------------|---|
|                     | Report 28.  |
| <b>Horticulture</b> | <ul style="list-style-type: none"> <li>• The grower trials aimed to engage a diverse representation of growers from within industry to participation in the trials and potentially interest those participants in adopting some or all of the practices suggested in the guidelines. Evaluation of the grower trials has shown that while not a focus, some growers have gone further than just reviewing the draft Guidelines, but also adopting some of the practices.</li> </ul>   |
| <b>Pork</b>         | <ul style="list-style-type: none"> <li>• Nutrient management plans, odour management, mortality composting, environmental improvement plans, routine incident recording, and improved solids handling are all becoming increasingly common in the pork industry.</li> <li>• For ESP Level 1 trial participants:               <ul style="list-style-type: none"> <li>○ 94% have made a management commitment via an environmental policy statement;</li> <li>○ 94% have provided staff with environmental training in BMPs;</li> <li>○ 94% have developed an Environmental Management Plan to document site characteristics and management practices;</li> <li>○ 67% have used environmental action/improvement plans to achieve continual improvement; and</li> <li>○ 78% have had EnviroCheck completed by an APL accredited assessor to identify environmental risks.</li> </ul> </li> </ul>   |
| <b>Seafood</b>      | <ul style="list-style-type: none"> <li>• Clear on-ground environmental outcomes were evident, including by-catch reduction or avoidance, reduction of waste and litter, recycling, change from non-biodegradable to biodegradable products (i.e. a biodegradable plastic inner that can be inserted in specially treated, purpose-built cardboard boxes to transport fish product) and control of introduced species. This was achieved by the commitment of people in fishing industry to practice better environmental performance.</li> <li>• Moreton Bay fishers demonstrate one of their EMS actions through participation in the Clean up Australia Day Campaign. The participation in the event generated significant media coverage for the Moreton Bay seafood EMS. Through this, fishers in the Moreton Bay were able to communicate positive messages to communities in Queensland about their environmental.</li> <li>• Seafood organisations are using the Seafood EMS programs to improve resource access security by achieving and demonstrating improved environmental performance, for example:               <ul style="list-style-type: none"> <li>○ The Clyde River oyster farmers formed a cluster group to implement an EMS in the estuary.</li> <li>○ The Northern Territory Barramundi EMS catalysed the development of six industry-driven EMSs in other Northern Territory fisheries.</li> <li>○ The WA Pearl Producers EMS was instrumental in securing the pearling industry's future access in marine parks currently being established in WA.</li> <li>○ The Victoria Bays and Inlets EMS was recognised in the Victorian State Environmental Awards and has undergone a</li> </ul> </li> </ul> |

| Projects            | Evidence of increased adoption of profitable and sustainable farming practices  |
|---------------------|---|
|                     | <p>third party audit.</p> <ul style="list-style-type: none"> <li>○ The Tasmanian Little Swanport EMS is recognised as a world-class model for integrated management of estuaries. Mr Col Dyke, the main industry driver of the EMS, won a major state business and environmental award and was recently awarded an Order of Australia medal.</li> <li>○ The South Australian Southern Rocklobster EMS is a unique through-chain EMS and won the Australian-UN Association Environment Award. The “Clean Green” program, continually being improved, is now being used as a platform for developing new premium price markets.</li> <li>○ The Moreton Bay EMS triggered significant cultural and attitudinal change in a sector that previously had little confidence in the future. They won the 2006 Queensland Primary Industry Awards for “Sustainable Primary Producers” and “Most Outstanding Contribution to Queensland Primary Industries.</li> <li>○ Agreement for four regions in Queensland to undertake an EMS.</li> </ul> |
| <b>Chicken meat</b> | <ul style="list-style-type: none"> <li>• Many growers as a result of their EMP development are now implementing farm improvements. They include: documentation of contingency plans for potential farm events; improved chemical storage/use/documentation; more farm safety signage; tighter traffic noise controls; monitoring/recording of weather and farm boundary odour, noise and dust; more vegetative filters and screening; improvements in shed ventilation and litter moisture controls; changes in disposal or use of spent litter fertiliser; increased contacts with neighbours; better composting; installation of first aid and fire control equipment.</li> <li>• There is evidence in Victoria, based on complaint data, that there has been a significant reduction in complaints from neighbours, which suggests that changing practices has reduced community amenity issues.</li> </ul>  |
| <b>Eggs</b>         | <ul style="list-style-type: none"> <li>• As a result of the workshop, 82% of participants had identified changes that will be made to farm operations.</li> <li>• EMS program has enabled producers to incorporate sustainable EMS principles without reducing farm profitability. This will reduce both community amenity impacts and impacts on natural resources (surface water, groundwater, soils and vegetation).</li> <li>• The information required by the egg industry to ensure the responsible and appropriate use of egg industry by-products (manure, litter, shells etc) to deliver the best environmental outcome, has been achieved via the training programs.</li> <li>• The safe, sustainable and profitable use of these by-products has generated the most interest from egg businesses during the project training workshops, driven development of additional promotional and education material (Fact sheets) on areas such as composting; and by-product characteristics, storage and application.</li> </ul> |
| <b>Rice</b>         | <ul style="list-style-type: none"> <li>• RGA has obtained funding from Department of Environment &amp;</li> </ul>   |

| Projects | Evidence of increased adoption of profitable and sustainable farming practices   |
|----------|--|
|          | <p>Heritage to establish 10 waste oil collection points across the region as a result of ECP participant ideas.</p> <ul style="list-style-type: none"> <li>• Committee established to address ‘stubble burning smoke’.</li> <li>• Ten farm businesses within a cluster group worked together to link their remnant vegetation to each other and a nearby riparian corridor. This project was assisted with the technical and financial support of Murrumbidgee Irrigation.</li> <li>• Compliant Chemical Facility (one of 8 actions required for Level 1 recognition) - As a result of the ECP to date, over 250 compliant chemical storages are in place.</li> <li>• Nearly every group has collectively purchased signs, storage bunding and personal protective equipment in bulk to save on costs. Cluster groups have also been known to hold ‘working bee’s’ providing a social occasion and generating motivation to complete the action.</li> <li>• What typically was an area that contributed little to the productivity of the farm overall, has now resulted in an average of 25% increase in lambing rates due to the increased protection from the vegetation and the vegetation regenerates for the remainder of the year.</li> <li>• Activities/meetings as directed by cluster groups include: <ul style="list-style-type: none"> <li>○ organised and held a vegetation bus tour with the support of Irrigation Company’s and Catchment Management Authorities (involved vegetation experts discussing broad vegetation types and assisting participants to identify native veg).</li> <li>○ discussions on prioritising vegetation types, linking vegetation sites and the possibility of revegetating least agricultural profitable areas on farm.</li> <li>○ Occupation Health &amp; Safety requirements on farm (not included within ECP).</li> <li>○ organised mental health days.</li> <li>○ 8 groups done Greenhouse Training, with discussion about the types of on farm actions to reduce emissions.</li> <li>○ Increased participation in irrigation company water management workshops - Level One requirement of ECP (trainer attends cluster group rather than individs on course).</li> </ul> </li> <li>• 60 farmers participated in wildlife workshops with Ecologist Matt Herring, focussing on management techniques to promote biodiversity, as requested by ECP participants.</li> <li>• 3 cluster groups participated in nitrogen management training, due to increased awareness that nitrogen forms a large part of their greenhouse footprint, as requested by ECP participants.</li> <li>• Some ECP participants have become involved in a study with ecologists looking at the importance of rice to frog populations and the importance of frogs to rice systems.</li> <li>• A number of cluster groups have discussed the possibility of linking the vegetation on farm by merging their individual vegetation plans at a broader scale. Irrigation company implementation officers have attended the meetings to provide their expertise and advise what</li> </ul> |

| Projects    | Evidence of increased adoption of profitable and sustainable farming practices   |
|-------------|--|
|             | financial incentives are available to assist.  |
| <b>VFF</b>  | <ul style="list-style-type: none"> <li>• Findings from Evaluation Reports A and B list the following actual or planned practice changes: Soil testing of whole farm; Engage an agronomist; Improve quality of work with fencing; Fence off dams and reticulate to troughs; Tidy up around the sheds; Manage chemical records better; Research fodder crops; Build a chemical storage; Upgrade effluent system; Construct a feed pad; Pasture improvement; Go into dairying; Controlled traffic farming; Stubble retention; Purchase more land; Pasture establishment; Permanent electric fencing for cell grazing.</li> <li>• 85% of participants completed the whole program to action plans; Participants were unanimously happy with 1:1 delivery; Participants reported a high level of farm business involvement in the planning process with 28% of business seeking external advice; 42% of participants had initiated a significant change to their farm business in the first 12 months following the activity; All participants identified 2 or more longer term actions from the activity; 38% of participants requested a follow up visit to review their plans and a further 12% were still considering the offer.</li> <li>• 700 property or reserve management plans completed.</li> </ul>  |
| <b>Wine</b> | <ul style="list-style-type: none"> <li>• Although data from the 2007 vintage will not be available until June 2007, there is expected to be an increase in the adoption of sustainable farming practices compared to that observed in the 2006 vintage pilot. Further, the heightened awareness of CMAs and NRM boards is expected to increase the industry's exposure to sustainable practice workshops, generic best management practice documentation, and technical assistance offered by these organisations.</li> <li>• As at May 2007, the Winemakers' Federation has received data from some 2100 grower surveys. The final number of surveys expected is estimated at 3700. Based on the data received to May 2007, the following progressive results are available: <ul style="list-style-type: none"> <li>○ 57% of growers have participated in NRM/CMA training and/or workshops.</li> <li>○ 61% of growers have a property management plan.</li> <li>○ 67% of growers are applying best management practices as issued or endorsed by their CMA/NRM body.</li> <li>○ 20% of growers are participating in an on-farm nature conservation programme, and a further 10% are considering participation.</li> <li>○ 84% of growers retain vegetation in the vineyard inter-row, with 16% of growers using native vegetation species.</li> <li>○ 63% of growers use drip irrigation.</li> <li>○ 44% of growers manage waterways to retain vegetation, whilst an additional 40% of growers don't have a waterway on their property.</li> <li>○ 76% of growers use soil moisture monitoring to inform irrigation scheduling.</li> <li>○ 60% of growers only apply fertilisers in response to soil or</li> </ul> </li> </ul> |

| Projects      | Evidence of increased adoption of profitable and sustainable farming practices   |
|---------------|--|
|               | <ul style="list-style-type: none"> <li>petiole testing.</li> <li>o 30% of growers use some form of renewable energy on farm.</li> </ul>  |
| <b>Grains</b> | <ul style="list-style-type: none"> <li>• The final chart shows the use of various other practices in the cropping areas from the database as at May 2007. No suitable comparative data are available for 2001, since (for example) some practices had not truly been developed at that time, like Precision Agriculture in its variants, and in other cases the ABS did not collect data on these practices.</li> </ul>  |
| <b>Wool</b>   | <ul style="list-style-type: none"> <li>• The majority of producers who completed the survey reported that it had prompted them to consider at least some minor changes to their management practices.</li> </ul>   |
| <b>QFF</b>    | <ul style="list-style-type: none"> <li>• QDO and NGIQ have been able to document the increased adoption of profitable and sustainable farming practices through their FMS programs.</li> <li>• Growcom - Examples of farm management practices that growers have taken steps to formally implement to date include business planning, food safety programs, Work Place Health and Safety (WPH&amp;S), crop monitoring documentation, Land and Water Management Plans, farm based soil health monitoring kits and the uptake of water use efficiency technology through Growcom's Water For Profit program.</li> </ul>  |
| <b>TFGA</b>   | <ul style="list-style-type: none"> <li>• Producers survey - 90% of those who have completed FarmSAT have undertaken other activities, eg participating in Whole Farm Planning / Property Management Planning, modifying their agricultural chemical storage facilities and enrolling staff in traineeships.</li> <li>• Facilitators have undertaken limited (14 producers contacted to date) follow up with producers who have worked through FarmSAT and in 93% of the cases progress has been made toward actions identified through the FarmSAT process. Examples include: <ul style="list-style-type: none"> <li>o Two producers have improved farm chemical sheds, and one has plans to build a chemical shed (only held back due to drought and stock feed requirements).</li> <li>o Removal of waste metal (FarmSAT provided information on removal options).</li> <li>o Gorse removal (FarmSAT provided information and contact with Cradle Coast weeds officer).</li> <li>o Development of accurate farm maps.</li> <li>o Accessed Tasmaps and used information to communicate more effectively with lessee.</li> <li>o Work commenced on erosion control and shelter belt.</li> <li>o Improvement in farm recording systems.</li> <li>o Commenced fencing of remnant bush.</li> <li>o Commenced wallaby fencing.</li> <li>o Propagating covenant species from planting.</li> <li>o Progress made towards increasing on farm water storage.</li> <li>o Registered to participate in whole farm management computer</li> </ul> </li> </ul> |

| Projects | Evidence of increased adoption of profitable and sustainable farming practices  |
|----------|---|
|          | <p>course.</p> <ul style="list-style-type: none"> <li>○ Producer has enrolled employee in Certificate 3 in Agriculture (FarmSAT passed on information).</li> <li>○ Filling in of on farm “tip” with all waste now being taken to municipal waste transfer station.</li> <li>○ Removal of removed poplars from paddocks adjacent to major highway. The producer stated that after doing FarmSAT he identified these trees as at risk of falling onto the highway. A shelter belt of native species is being planted 50m from the boundary fence.</li> </ul> <ul style="list-style-type: none"> <li>• Many participants in FarmSAT were using the tool as the first step in preparing a Property Management Plan (or Whole Farm Planning) as part of the PMP programs being run by each of the Tasmanian NRM Regions.</li> <li>• Quite separately at least 14 farming businesses have applied to participate in the PMP programs as a direct result of completing FarmSAT.</li> </ul> |

## Ongoing industry action/pathway, industry leadership into future and increased industry responsibility

| Projects | Evidence of ongoing industry action/pathway, industry leadership into future and increased industry responsibility  |
|----------|---|
| Cotton   | <ul style="list-style-type: none"> <li>• The industry - through Cotton Australia and Cotton Research &amp; Development Corporation - is committed to maintaining a formal program for managing the environmental impacts of cotton farming.</li> <li>• On-going industry action to deliver on this commitment will therefore likely focus on revising the current (2nd) edition of the BMP Manual (last updated in 2004) in light of comments and feedback received during various reviews of legislation, updated industry information and surveys on grower attitudes to BMP. Aspects for specific consideration in this revision process include:             <ul style="list-style-type: none"> <li>○ Better integrating the production and environmental aspects of cotton production into a more seamless package i.e endeavouring to remove (as much as possible) the distinction between environmental management aspects and production aspects.</li> <li>○ Maintaining this distinction<sup>18</sup> works to institutionalize the perception that environmental considerations are an ‘add-on’ management issue that is being externally imposed, whereas incorporating environmental issues into every-day farm management practices and processes will deliver a more robust approach.</li> <li>○ Better identifying and quantifying the specific benefits potentially to achieved as a result of adopting the recommended best practice.</li> <li>○ Identifying more explicitly the actual changed practices being implemented by cotton growers, and the specific benefits that have resulted from those practice changes</li> <li>○ Focussing the promotion of the BMP Program on the inherent benefit to the farm, rather than because there is some external pressure that is dictating to the grower what they must do.</li> <li>○ Developing options for delivering the BMP Manual via an electronic interface, including the ability for computer based data entry, report generation and practice change measurement —which will require improved data capturing capabilities</li> <li>○ Further integrating the BMP concept with the requirements of CMA’s and other farming enterprise activities (especially grain and cattle production)</li> <li>○ Developing appropriate environmental performance indicators (see below, 10-Ultimate Outcomes for more detail)</li> </ul> </li> <li>• From a fibre quality management perspective the development of fibre quality BMPs has helped improve both the internal operation of the individual classing facilities, as well as the cohesiveness of the classing sector generally. It is anticipated that similar outcomes will eventuate from the development of the ginning BMPs, initiated by this Project. Continually ‘raising the bar’ on fibre quality management (eg. on contamination levels) will be necessary for the</li> </ul> |

| Projects     | Evidence of ongoing industry action/pathway, industry leadership into future and increased industry responsibility  |
|--------------|---|
|              | <p>industry to retain its current status as a supplier of high quality cotton. On-going industry action to deliver on this will therefore likely focus on:</p> <ul style="list-style-type: none"> <li>○ Continued development and finalisation of Fibrepak.</li> <li>○ Continuing to support the development of ginning BMPs to the stage that they have been agreed and finalized.</li> <li>○ For the cotton harvesting sector, building on the initial relationship established between the professional association and industry established by the project to finalise the harvesting 'Picking for Quality' checklist, developing a standardized OH&amp;S induction process (including reviewing the need to update the existing 'Harvest Safety' video developed through CRDC), continuing to work on standardising road transport rules, and organising and running a series of 'prepick' workshops for cotton harvesting contractors prior to the 2008 harvest that would focus on raising awareness of the various components of fibre quality, with an emphasis on those that can be affected by harvesting practices.</li> <li>○ Continuing the support being provided to the Classers Association in their audit program to at least 2008; the Cotton Classers Association has clearly expressed the desire to maintain the BMP Program, and to have on-going industry involvement in future refinements of both the technical aspects of the Program, and the auditing procedures supporting it. Other areas of continued activity include instigating an independent check-test analysis, and further refining the ability to quantify the colour and leaf components of cotton quality via machine, rather than visually.</li> <li>○ Developing warehousing BMPs (through ACSA) so that there are no gaps in the fibre quality management chain.</li> <li>○ Continued promotion of both the environmental and quality aspects of Australian cotton by ACSA in Australia's main markets.</li> <li>○ Continued support of research that aims to: demonstrate the quality of Australian cotton; highlight the importance of quality; better measure quality; help preserve quality; and create better quality varieties. As highlighted by the 'grower' perspective provided to the 29 May 2007 workshop the challenge is to undertake this integration (or connecting): across commodities; with CMA needs; and along the supply chain in a way that somehow "captures value".</li> </ul> |
| <b>Dairy</b> | <ul style="list-style-type: none"> <li>● Dairy Australia has agreed to support the regional DfT coordinator positions until June 2008.</li> <li>● In March 2007, key industry stakeholders from across Australia participated in the third Information Exchange workshop to identify priority activities to increase the participation of dairy farmers in regional EMS programs. Participants at the workshop nominated broadening the industry EMS delivery base beyond its current reliance on Regional Dairy Programs (RDP) and state farming organisation facilitated delivery as the logical next step to increase</li> </ul>   |

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| <b>Projects</b>     | <b>Evidence of ongoing industry action/pathway, industry leadership into future and increased industry responsibility</b>   |
|                     | <p>up take.</p> <ul style="list-style-type: none"> <li>• Dairy Australia and the Australian Greenhouse Office have made a financial commitment to develop a Greenhouse Gas mitigation model and climate risk module for DairySAT (to be completed by December 2008).</li> <li>• To date regions have obtained NLP or regional CMA funding for a further 400 farmers to complete DairySAT over the next twelve months.</li> </ul>  |
| <b>Horticulture</b> | <p><b>Ongoing action</b></p> <ul style="list-style-type: none"> <li>• A number of activities conducted for raising awareness with industry and formulating post funding future for the program including Face-to-face industry consultation at Industry Summit 2004; Paper distributed to industry strategic planning meetings in August-September 2005 to highlight progress and end of funding mid-2006; <i>Vision and Strategy for Environmental Management in Australian Horticulture</i> promoted to industry with suggested integration of strategies into future industry plans; and Industry NRM Session held at HAL Industry Forum in November 2005 that highlighted the key opportunities and threats facing horticulture in the environmental area and the need to consider the long term future of Horticulture's environmental agenda.</li> <li>• Raising industry awareness of environmental management has been a success. Industry has been given open forums to discuss issues and opportunities of environmental management to perpetuate this.</li> <li>• Paper presented to the Industry Management Committee meeting in October 2005 and March 2006 requesting funds for 2006/07 onwards to support the ongoing environmental agenda.</li> <li>• IMC allocated \$50,000 in 2006/07 to continue the Horticulture for Tomorrow activities. The scope of the project is yet to be identified, but it is anticipated that it will link with the Horticulture Water Initiative and new Climate Change project that were also allocated funds in 2006/07.</li> </ul> <p><b>Industry responsibility – industry determined future actions</b></p> <ul style="list-style-type: none"> <li>• Industry NRM Session November 2005 - the HAL Project Manager – Environment was offered a session at the twice yearly HAL Industry Forum, a valuable opportunity to engage industry, generate input into current projects and future planning. The aim of this session was to showcase the current Environmental Portfolio to the horticulture industry and request feedback from industry leaders regarding where to from here for environmental management in horticulture, with attendees at the forum including all horticultural commodity representatives (CEOs and Chairs of Industry Advisory Committees), Horticulture Australia Council and HAL Staff. The session showcased the national environmental programs currently managed by HAL, with representatives from the major environmental programs in attendance to give an update on their program as well as sit on a panel for the Q &amp; A session.</li> <li>• This was followed by a workshopping session on the key</li> </ul> |

| Projects            | <b>Evidence of ongoing industry action/pathway, industry leadership into future and increased industry responsibility</b>  |
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|                     | <p>environmental issues for horticulture into the future and how HAL and industry should be addressing them. Delegates identified current issues relating to environmental management and how they are impacting on horticulture, as well as priorities relating to what needs to be done in terms of future projects and agri-political action. The three issues identified as a priority were: the public perception of horticulture and the need to communicate our environmental credentials to the wider community; the importance of better water management; and the need for environmental management to be implemented in a sustainable way by growers.</p> <ul style="list-style-type: none"> <li>• A number of suggestions were made about how these issues could be tackled. It was suggested that water management could be address through increasing the efficiency and re-use of water and by better management of run-off; public perceptions could be improved by more proactive communications of success stories through the media and by better co-ordination of communications activities within the industry; and the implementation of environmental management by growers could be made more sustainable by increasing government support, minimising bureaucracy and by helping to ensure farm operations remain viable.</li> <li>• This session was valuable in allowing industry to comment and question some of the environmental projects and their progress to date, as well as highlighting the need for industry to take a proactive role in this area by prioritising investment now.</li> </ul> |
| <b>Pork</b>         | <p><b>Industry responsibility</b></p> <ul style="list-style-type: none"> <li>• APL has spent approx \$500,000 of its own funds during the life of the ESP project and APL has already committed to more than \$200,000 of ongoing EMS and BMP related commitments in 2007/2008.</li> </ul> <p><b>Industry future action</b></p> <ul style="list-style-type: none"> <li>• A contract is being developed with FSA consulting to revise the National Guidelines in 2007/2008 – for inclusion of new knowledge/new BMPs.</li> </ul>  |
| <b>Seafood</b>      | <ul style="list-style-type: none"> <li>• SSA conducted a national NRM workshop (funded under the Australian Government’s Sustainable Industries Initiative) to determine how the seafood industry could best engage in the regional NRM process – resulted in agreement on the way forward. SSA also delivered a report on Regional NRM and the seafood industry.</li> </ul>   |
| <b>CANEGRO WERS</b> | <p><b>Industry future action</b></p> <ul style="list-style-type: none"> <li>• The CEO’s group recommends: <ul style="list-style-type: none"> <li>○ Adoption of a strategy to develop a structured, industry coordinated and regionally implemented farm management system program.</li> <li>○ A strategy which focuses on improving farming profitability and long term sustainability and is accented towards improved productivity and reduced costs.</li> <li>○ The strategy presents a united agreed whole of industry approach for industry and general community awareness of</li> </ul> </li> </ul>   |

| Projects | Evidence of ongoing industry action/pathway, industry leadership into future and increased industry responsibility  |
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|          | <p>farming in a sustainable manner.</p> <ul style="list-style-type: none"> <li>○ Adoption of industry wide terminology, recognition and achievement programs.</li> <li>○ The regionally based programs be identified on an industry wide basis as SMARTCANE E.g. SMARTCANE Mackay, to provide industry wide identity and external recognition.</li> <li>○ Each region implements a 'entry' analysis program to allow farmers to assess needs and actively encourages farmers to participate: <ul style="list-style-type: none"> <li>○ Farm Check be adopted preferentially, but not exclusively, as that program.</li> </ul> </li> <li>○ An industry wide decision making and complete farming system support tool such as BSES FPA Program be endorsed as a default system.</li> <li>○ Aggregated farm assessment data be used a basis for assessment regional needs, establishment of priorities and provide for a broad based industry wide reporting system.</li> <li>○ Existing regional, distinct and mill area programs form the basic components of an industry wide system.</li> <li>○ Encouragement of farm business analyses and support services which may vary between regions and which recognise differing needs and priorities.</li> <li>○ That these regional programs be tested to ensure that they meet an industry wide standard.</li> <li>○ Development of a process to endorse regional programs which provide the basis for such an industry wide strategy and which enhance farm decision making: <ul style="list-style-type: none"> <li>○ A Technical Committee, drawn from across the industry, be established to develop program endorsement protocols.</li> <li>○ That Technical Committee carry out regional program endorsement.</li> </ul> </li> <li>○ CEO's group continue industry wide oversight and seek necessary resourcing to coordinate regional activities.</li> </ul> <ul style="list-style-type: none"> <li>● Activities to formalise the umbrella program/ strategy will continue after the conclusion of the Sugarcane FMS Project.</li> <li>● A number of regional sugar industry groups are also developing their own pathways, which are generally consistent with the broad principals developed by the sugar industry CEOs FMS Committee. Adoption of the many support tools and support services will continue, as will development and adoption of new tools and services for growers to implement good farm practices to enhance sustainability.</li> </ul> |
| Sugar    | <ul style="list-style-type: none"> <li>● An FMS Steering Group comprising of the Chief Executive Officers of CANEGROWERS, the Australian Sugar Milling Council who represent all mill owners, BSES Ltd who provide extension services across the sugar industry, Sugar RDC and AGRECON have endorsed the FMS framework and the Sugar FMS Tools, after considerable fine-tuning of the materials.</li> <li>● Recent articles in the Australian CANEGROWER also show that</li> </ul>  |

| Projects            | <b>Evidence of ongoing industry action/pathway, industry leadership into future and increased industry responsibility</b>   |
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|                     | Canegrowers (peak body representing 85% of cane growers) is taking responsibility to lead uptake of FMS amongst its members.  |
| <b>Chicken meat</b> | <ul style="list-style-type: none"> <li>• On-going action will continue for the meat chicken industry to promote on-farm auditing and the National EMS Training Package and materials that have been produced. Continued training of new on-farm auditors will be promoted to complement the National EMS program and to continue involving growers in the auditing process. On-going surveying of growers and processors will be a priority for gauging the continued application of EMS principles and to identify barriers that limit its implementation.</li> <li>• Ultimately, the chicken meat industry will develop the EMS concept to migrate towards the Property Management System (PMS) approach. EMS will be a significant part of the PMS and compliment other on-farm biosecurity, quality assurance, animal welfare and food safety issues. The adoption of a PMS will holistically integrate issues affecting growers and will also be designed to amalgamate processor and consumer requirements. The industry will continue to manage auditing, accreditation and liaison to achieve the future objectives.</li> </ul> |
| <b>Eggs</b>         | <ul style="list-style-type: none"> <li>• Egg industry has shown responsibility and leadership by including EMS for the egg industry into the framework of Egg Corp Assured (ECA). This has provided the industry with the method to achieve and demonstrate ongoing compliance with best environmental practice. EMS will now be a standard part of the accreditation scheme, ensuring its continuation post-Pathways project. This is integral for the sustenance of EMS and its progression into the future.</li> <li>• The AECL is committed to the ongoing support of EMS implementation and will maintain industry programs to encourage further EMS uptake.</li> <li>• The ECA program will also be regularly reviewed with industry and regulators to address new challenges as they occur. This continual refinement of the ECA program will improve community confidence that the eggs that they are consuming are being produced in a clean and green manner and that the egg industry is committed to continually improving environmental performance.</li> </ul>  |
| <b>Rice</b>         | <p><b>Future funding</b></p> <ul style="list-style-type: none"> <li>• In the future, the program will be supported by an environmental levy placed on all rice crop delivered for milling - a voluntary per tonne levy.</li> <li>• The Rice Industry's "Taking Stock and Setting Directions" report completed under DAFF's partnerships program also identified the ECP as being an important aspect of the industry's approach for the future.</li> </ul> <p><b>ECP as an extension platform</b></p> <ul style="list-style-type: none"> <li>• The ECP was also recently considered in an industry extension evaluation, again as it is being valued as a network to achieve increased adoption of profitable and environmental outcomes. The ECP research strategy developed under the Pathways to Industry</li> </ul>   |

| Projects | <b>Evidence of ongoing industry action/pathway, industry leadership into future and increased industry responsibility</b>   |
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|          | <p>EMS program will be aligned with industry production research strategy's to ensure that research considers natural resource management in a holistic view of regional sustainability.</p> <ul style="list-style-type: none"> <li>• It is possible that the program will no longer be necessary in its current form as the environmental aspects of farming become imbedded in day to day farming practices. The standards for growing grain may eventually include all the environmental features of the Champions Program so that no farmer is able to supply grain that is not currently recognised at Level 2 or 3 of the program. It is also possible that market based instruments and incentives will evolve over the next 4 to 5 years to become significant drivers of change.</li> <li>• The Steering Committee is considering how to ensure that many of these changes come about and what Key Performance Indicator's (KPI's) should ultimately be used to judge the effectiveness of the program. We have developed tools for reviewing changes in the attitudes of farmers and for their levels of motivation. However, we have not yet developed tools for effectively measuring the benefits to farmers of undertaking change or the degree to which environmental issues are imbedded in good farm business. These are the subject of on-going research - will be developing a research program that looks at the benefits of improving environmental assets on farm. eg developing studies into the benefits of biodiversity in farming systems and considering all the challenges of designing biodiversity recovery in highly modified environments.</li> <li>• Other issues for which indicators must be developed are the benefits of working in clusters - need to know how to improve on this system and create links between farmer clusters across the region. Looking at expanding the existing award system for irrigators (Irrigated Research &amp; Extension Committee) to showcase the best farming practices.</li> </ul> <p><b>Research gaps</b></p> <ul style="list-style-type: none"> <li>• An ECP research strategy has been developed to proactively identify and prioritise areas where environmental research is required to see the ECP reach its full potential for the industry and regions. The strategy has identified the role of RGA, Environmental Champions Program in research, key knowledge gaps and specific research projects, potential project partners and funding opportunities. Research projects will be selected on the information required to act as an incentive to encourage landholders to continually progress through the ECP which will achieve greater regional and catchment outcomes.</li> <li>• A gaps analysis was conducted The development of the strategy has provided an opportunity to formalise the gaps being identified by landholders, and provide a strategic pathways forward to seek interest in research organisations conducting research across the region.</li> </ul> |
| VFF      | <ul style="list-style-type: none"> <li>• VFF sees EMS as a means of confirming the organisation's commitment to responsible environmental management which was first demonstrated by its role in the development of Landcare 20</li> </ul>  |

| Projects    | Evidence of ongoing industry action/pathway, industry leadership into future and increased industry responsibility  |
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|             | <p>years ago.</p> <ul style="list-style-type: none"> <li>• VFF is co-operating with the Victorian Government in the development of the new process of Property Vegetation Plans (announced March 2006). This process is closely aligned with EMS and gains farmers planning permits for 10 years, as compared to 2 years previously.</li> </ul>   |
| <b>Wine</b> | <ul style="list-style-type: none"> <li>• the following industry-led pathway has been identified and will be the focus of Wine Industry National Environment Committee work planning in mid-2007: <ul style="list-style-type: none"> <li><b>Step 1:</b> Extension of environmental assurance program from primary production into the processing side of the industry.</li> <li><b>Step 2:</b> Development of a matrix listing natural resource issue against all existing response mechanisms at the Commonwealth and State Government, non-government organisation, industry and regional levels (eg legislation/regulations, voluntary schemes, certified training etc). AWIS does not cover every sustainability issue because it is recognised that the industry can cover these using existing programmes. There is need to build this awareness outside of Australia given that competitor programmes appear more comprehensive.</li> <li><b>Step 3:</b> Seek recognition of the Australian wine industry's alignment and consistency with the international industry's adopted sustainability principles.</li> <li><b>Step 4:</b> Produce a national industry report on AWIS spray diary survey results and review survey National Indicator Questions for use in the 2008 vintage.</li> <li><b>Step 5:</b> Under the banner of AWIS, commence a life cycle analysis of Australian wine production.</li> <li><b>Step 6:</b> Facilitate access to regional financial incentives and support through NRM Boards/CMAs on an 'as needs' basis to foster continuous improvement of management practices.</li> <li><b>Step 7:</b> Participation in international industry efforts to lobby market gatekeepers to recognise and accept the industry's approach to environmental assurance.</li> <li><b>Step 8:</b> Industry-wide recognition and acceptance of sustainability benefits of environmental assurance (including benefits to production systems, natural resource condition and market access).</li> </ul> </li> <li>• This pathway is supported by the 'Wine Australia: Directions to 2025' released in May 2007 and is currently being planned in greater detail by the Wine Industry National Environment Committee.</li> <li>• Initial application of AWIS could persist with minimal future maintenance and the industry can internalise those maintenance costs. Industry funding has already been secured to provide one FTE for 12 months beyond the current Pathways to Industry EMS funding horizon to do this.</li> <li>• Increasing industry interest to take AWIS 'to the next level', recognising the current programme as the basic entry level scheme,</li> </ul> |

| <b>Projects</b> | <b>Evidence of ongoing industry action/pathway, industry leadership into future and increased industry responsibility</b>  |
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|                 | but developing a broader AWIS program to accommodate life cycle analysis.  |
| <b>Grains</b>   | <ul style="list-style-type: none"> <li>• The design of the National Farming Practices Database allows it to provide data for uses in addition to environmental needs, noting that better farming practices drive productivity and broader 'triple bottom line' improvements.</li> <li>• This also assists with encouraging greater use and interactions between such organisations ('users') of the database, and assists with potential funding and support for continued work for the service that would satisfy the needs of Environmental reporting; Industry policy development and analysis; Monitoring of adoption of research outcomes; 'Triple Bottom Line' analyses; Other uses.</li> </ul>  |
| <b>Red meat</b> | <ul style="list-style-type: none"> <li>• The red meat industry has a significant commitment to the ongoing maintenance, development and integrity of the LPA QA program.</li> <li>• Including a new environmental module in the program will ensure that the industry takes responsibility for the module's future.</li> <li>• The future of Landleader is uncertain.</li> </ul>   |
| <b>Organics</b> | <ul style="list-style-type: none"> <li>• A Farmer Reference Group has been established by the OFA to capitalize on the momentum achieved at the workshop.</li> </ul>   |
| <b>QFF</b>      | <ul style="list-style-type: none"> <li>• QFF is confident that industry now considers FMS part of its core business and is keen to control its implementation. However, there is still a gap between the vision and ongoing maintenance of delivery.</li> <li>• As part of the Pathways project QFF is organising a workshop for FMS program staff to be held in July 2007 to explore opportunities for incorporation of Climate Risk Management concepts and tools into FMS programs.</li> <li>• QFF is a member of the SEQ Irrigation Futures management group and is assisting with the design of the Knowledge Management System for Irrigation in SEQ (KMSI-SEQ) project which aims to coordinate knowledge exchange between a number of industry FMS programs, government resources and regional NRM spatial information capacity. The KMSI project is developing performance tools and databases which will support the irrigation based industries in their FMS program delivery.</li> </ul> |
| <b>TFGA</b>     | <ul style="list-style-type: none"> <li>• The application for extending the FarmSAT project and forthcoming Property Management Systems workshop demonstrate the TFGA's ongoing interest and support for EMS.</li> <li>• An unintended outcome of the FarmSAT project was the industry bid to host the 5th National EMS in Agriculture conference. This bid came about due to networking at the "Pathways" EMS Forum in 2006.</li> </ul>  |
| <b>PGA</b>      | <ul style="list-style-type: none"> <li>• The current project has only consulted pastoralists in the Southern Rangelands.</li> <li>• The Pastoral Lands Board indicated that their reporting and assessment system will require quantitative monitoring data, so more detailed work will need to be undertaken to develop the</li> </ul>  |

| Projects | Evidence of ongoing industry action/pathway, industry leadership into future and increased industry responsibility  |
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|          | <p>proposal to cover this aspect. Links to other Government funded NRM projects were identified. Potential “partner” projects included Ecologically Sustainable Rangelands Management, Food on Offer and Best Management Practices to be developed under Landcare projects.</p> <ul style="list-style-type: none"> <li>• PGA wants to work with the Pastoral Lands Board on behalf of pastoralists to develop a workable and useful environmental monitoring system that will both demonstrate environmental management criteria and foster a process of continued improvement in pastoral management.</li> <li>• PGA is keen to progress the EMS concept to the remaining pastoral regions (Pilbara and Kimberley).</li> </ul> |

## Increased community capacity and institutional change

| Projects | Evidence of increased community capacity and institutional change  |
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| Dairy    | <ul style="list-style-type: none"> <li>• Institutional change evidenced by: Regional Development Programs (RDPs) establishing Natural Resource Management (NRM) Steering Committees or equivalent; Catchment Management Authorities (CMAs) nominating dairy representatives on their staff; Landcare staff and government agencies using DairySAT; milk companies wishing to incorporate DairySAT into their standard practices and to facilitate farmer use of the tool; farm service providers participating in DairySAT facilitator training and using it as an addition to services provided to farmers, and other industry groups requesting access to DairySAT for their own use.</li> <li>• Funding generated in addition to the Australian Government. Pathways to EMS. funding included \$1.15 Million cash from NRM agencies, RDPs and the National Landcare Program (NLP) and an estimated \$2 million in kind contribution from organisational stakeholders involved and \$1.2million in kind from participating farmers institutional change is evidenced by: An increase in the number of RDPs and state farming organisations establishing NRM Steering Committees or equivalent; CMAs nominating Dairy representatives on their staff; Landcare staff, regional NRM agencies and government agencies ( e.g. Victorian and NSW Departments of Primary Industry, Murrumbidgee CMA) delivering DairySAT; Milk companies investigating how to incorporate DairySAT into their milk quality QA and to facilitate farmer.s use of the tool; Farm service providers participating in DairySAT facilitator training and using it as an addition to services provided to farmers; Other industry groups requesting access to DairySAT for their own use (Beef Industry).</li> <li>• These networks have already demonstrated a capacity to respond to emerging issues such as water availability and climate change. For example the joint DairySA, SA Dairy Association NRM steering committee, which includes representatives from SA Water, is working with water authorities to develop an appropriate set of standards for dairy water use efficiency plans. These will be mandatory for SA dairy farmers on the Murray system if dry conditions continue. The greatest risk to the long term viability of the regional NRM networks is the potential loss of the regional DfT coordinator positions. Regional NRM agencies through their involvement in the regional NRM networks established as part of DfT: On the Ground are increasing their level of involvement in industry R&amp;D programs.</li> <li>• Examples include regional NRM agency in-kind and financial support for the industry .Accounting for Nutrients. program and the Dairy Australia Sustainable Dairy Catchments projects, (eg the Myponga and Lower Lakes catchments projects in South Australia). The level of interaction and support could be higher; one of the identified barriers is the lack of understanding within research organisations about the role of regional NRM bodies. The key drivers at the moment are the regional DfT coordinators and as this</li> </ul> |

| Projects            | Evidence of increased community capacity and institutional change  |
|---------------------|--|
|                     | <p>is not a core responsibility of their role the extent to which they drive this interaction varies between regions. Action plans resulting from DairySAT are being used by investors to assess funding applications and to prioritise the allocation of on ground funding.</p>   |
| <b>Horticulture</b> | <ul style="list-style-type: none"> <li>• Development of new role within HAL – Project Manager Environment: At the time of establishment of this program there was no full-time Project Manager – Environment role with HAL. Previously the program fit within ‘extra-curricular’ projects managed by the Sustainable Development Team within HAL. However, after the environmental program was given external support a part-time (0.5 FTE equivalent) role was established (August 2004), and as the program and its related components expanded this role also expanded to a full-time Project Manager – Environment (October 2005).</li> <li>• This sudden expansion of roles would not have occurred within HAL without this program. As a result, there is now an Environmental PM within HAL with a specific Environmental Portfolio to carry on the horticultural industry environmental agenda once the project ceases.</li> </ul>   |
| <b>Pork</b>         | <ul style="list-style-type: none"> <li>• Apart from promoting EMS generally, APL is proactively addressing the future key issues for NRM in the pork industry including auditable Nutrient Management Plans and mitigating greenhouse gas emissions from pork production.</li> <li>• More widely, there has been enormous progress in the wider pork industry to effectively exploit the agronomic value of piggery effluents, manures, and mortalities. This progress has been supported by research from the PRDC, APL and industry champions such as QAF, George Western Foods and Windridge.</li> <li>• The move to harness bioenergy potential of piggery effluent has been lead by Charles IFE, KR Castlemaine, and West Pork who have installed full scale biogas capture systems. QAF Meats, Cameron Pastoral Co, Windrige, Australian Pork Farms, Kia Ora and George Western Foods have also committed their own funds to investigate the economic feasibility of bioenergy projects at their sites.</li> </ul> |
| <b>Chicken meat</b> | <ul style="list-style-type: none"> <li>• Continual improvement will be kept rolling by the State Committees that were established during this project and Australian Chicken Growers Council which will continue to maintain a coordinating role. These committees will maintain state focus and provide a network for inter-state communication. These committees are responsible for the further progress of EMS in each state and will improve the institutional change in terms of EMS occurring within the industry.</li> </ul>   |
| <b>Rice</b>         | <ul style="list-style-type: none"> <li>• Capacity building through increasing trust, motivation, support and most importantly increasing confidence to achieve outcomes is the fundamental process that underpins the Environmental Champions Program.</li> <li>• The program is delivered through small farmer led networks known as ‘cluster groups’. Groups are self selected and self led with the support of ECP regional coordinators. The cluster group model allows a rich process that has benefits beyond just the program. It is</li> </ul>   |

| Projects | Evidence of increased community capacity and institutional change   |
|----------|---|
|          | <p>about providing an environment of encouragement, self development and confidence to implement actions within the group.</p> <ul style="list-style-type: none"> <li>• The key role of the ECP is to build and facilitate networks of landholders. It provides a forum to talk and plan together, to learn from each other and the “experts”. Self selected cluster groups create confidence and motivation and have many social benefits. Groups have tackled projects such as vegetation corridors, collectively and much sooner than would have happened individually.</li> <li>• Most cluster groups have met approximately 4 times over a year – the meetings are designed to be 2 hours maximum, to ensure that grower’s time is seen as valuable. The groups themselves determine how often, when and where they want to meet – it is up to them. – self driven at grass roots level RGA staff provides support along the way, including assisting with arranging meetings and passing on helpful tips that come from other groups. Cluster groups have found phone hook-ups between the group leaders are a great way to support each other and share ideas. The location of Regional Coordinators in each irrigation region has enabled greater support. However, the level of support provided will be managed to ensure the coordinators role continues to be to help landholders help themselves.</li> <li>• Regional organisations associated with the program have increased their attendance at cluster group meetings (at the request of cluster groups) and at development meetings for the program as they value the capacity of the program to coordinate resources to achieve regional goals and targets.</li> <li>• ECP has been recognised for its value of keeping morale positive by bringing communities together to support each other to plan for beyond these times. ECP is not only an environmental program; it is also a community building program.</li> <li>• Stronger neighbourhood relationships are seeing better transfer of information e.g. one participant has trialled different farming methods on some areas of their farm under the guidance of one of their fellow group members. This has allowed them to try different crops and diversify their farming operation.</li> <li>• An anecdotal example is, a landholder explaining that DIPNR held the ECP in high regard when assessing a clearing permit on their property as result of the landholders’ investment in biodiversity enhancement on other areas of their farm.</li> <li>• Cluster groups have used other cluster groups as ‘showcases’ for chemical sheds and made comments that it didn’t seem as hard as they thought it would be (overcoming a perception barrier) and were impressed by other innovation.</li> <li>• Teleconferences held between cluster group leaders to provide an opportunity to share tips and ideas for managing cluster groups - builds skills in managing and motivating a group.</li> <li>• Individuals from cluster groups are hosting visits from their fellow cluster group members looking at innovation or environmental</li> </ul> |

| Projects        | Evidence of increased community capacity and institutional change   |
|-----------------|---|
|                 | improvements that they have implemented e.g. direct seeding of vegetation. Many participants comment they are interested in doing something similar.  |
| <b>Wine</b>     | <ul style="list-style-type: none"> <li>• Australian Wine Industry Stewardship has only existed for 2 years, and much of that was a developmental phase. As a result, increased industry awareness of environmental management is the realistic outcome, as a precursor to increased wine industry community capacity and institutional change.</li> </ul>   |
| <b>Red meat</b> | <ul style="list-style-type: none"> <li>• The development of environmental BMP represents significant institutional change at MLA.</li> <li>• It is unclear whether the environmental BMP will become embedded in MLA programs, but this project was a step in the right direction.</li> <li>• Ultimately, institutional change will occur if MLA, AWI, peak councils and NRM regional groups see value in promoting environmental BMP.</li> </ul> |

## Improved natural resource management and environmental outcomes

| Projects | Evidence of improved NRM and environmental outcomes  |
|----------|--|
| Cotton   | <ul style="list-style-type: none"> <li>• The connexion between those changed practices and specific environmental outcomes is still difficult to make. There are two fundamental difficulties in establishing the connexion:                             <ul style="list-style-type: none"> <li>○ There is no agreed set of specific indicators applicable across industries or with catchments against which to measure and determine agreed environmental outcomes.</li> <li>○ There is still a lack of certainty as to the connexion between (the currently general) catchment targets and the specific on-farm practices expected to assist in meeting that catchment target the lack of an agreed set of EPIs has limited the ability of the cotton industry to effectively measure the success and impact of the BMP Program against the needs and requirements of external stakeholders, such as the CMA's. Agreement on a set of cross commodity EPIs that also meet the needs of the CMA will allow the industry to focus its attention on measuring the impact of the most important and relevant NRM issues for a catchment, and also assist in identifying areas that require additional extension support. The results of this monitoring will then allow the industry to determine whether adjustments need to be made to any of the elements of the BMP Program (eg. focus of implementation effort on specific issues, development of BMPs to address issues not covered in the BMP but for which a specific EPI is being monitored).</li> </ul> </li> </ul> |
| Dairy    | <ul style="list-style-type: none"> <li>• Long term change in biophysical conditions (environmental outcomes) are not possible to measure at this stage of projects, however improved natural resource management is evident and reflected by a Most significant Change (MSC) analysis of case studies taken from each dairy region (refer Milestone 28). Outcomes of the MSC analysis are reflective of general outcomes following the DfT- on the Ground project and include:                             <ul style="list-style-type: none"> <li>○ Increased productivity resulting from efficient chemical use, fewer injuries, reduced.</li> <li>○ Energy consumption, and reduced water consumption.</li> <li>○ Improved use of nutrients on farms by soil testing and recycling effluent.</li> <li>○ Protecting remnant vegetation and waterways by fencing to keep stock out.</li> <li>○ Revegetating waterways, shelter belts and biodiversity corridors.</li> <li>○ Improved whole farm planning.</li> <li>○ Increased leveraging of funds for implementing NRM action plans.</li> </ul> </li> </ul>   |
| Pork     | <ul style="list-style-type: none"> <li>• APL is aware of NRM work by a number of its ESP participants including habitat protection work completed by QAF Meats in conjunction with local land care bodies and by Windridge Farms in conjunction with their local Catchments Management Authority. These programs were not formally a part of APL's <i>ESP project</i> but</li> </ul>   |

| Projects            | Evidence of improved NRM and environmental outcomes  |
|---------------------|--|
|                     | are indicative of a wider pattern of NRM protection by progressive pork producers.   |
| <b>Chicken meat</b> | <ul style="list-style-type: none"> <li>• By-product users were educated during the EMS workshops in the correct timing and application rates of by-products relative to the nutrient composition of the product, to minimise environmental issues associated with its utilisation.</li> <li>• Growers were made aware of the advantages of tree planting for their enterprises in improving community amenity and natural resource impacts, has encouraged the greater adoption of revegetation of meat chicken farms with appropriate native trees.</li> <li>• Another important component of the training emphasised water use efficiency in on-farm practices. How much change has taken place will only become clearer as the mentoring and auditing process progresses. Evidence from workshops suggests that many farms were either making changes or seeking information on how they might better manage their operations.</li> </ul>   |
| <b>Eggs</b>         | <ul style="list-style-type: none"> <li>• The project has enabled the egg businesses to better understand how their enterprises can adversely affect the natural resources of the farm and surrounding areas, provide information on how these impacts can be managed and minimised, and make a dollar at the same time.</li> <li>• Other natural resource and community amenity benefits promoted via the training programs and generating significant interest from egg businesses included tree planting to improve visual amenity and reduce community impacts (dust and odour), and water use efficiency strategies.</li> </ul>  |
| <b>Rice</b>         | <ul style="list-style-type: none"> <li>• See table 3 of final report.</li> <li>• ECP provides an improved ability of landholders to manage risk and incorporate NRM outcomes into their management programs. The support networks results in increased outcomes and achieves greater outcomes than what could be achieved by a single farm business.</li> <li>• An example of this is a cluster group identifying the potential of linking their farm vegetation corridors (Level 4 &amp; 5 action). Murrumbidgee Irrigation working in partnership provided the expertise, resources and financial assistance that now sees sixty five hectares of new and enhanced remnant plantings that linking 10 farms to riparian corridor of the Murrumbidgee River. This demonstrates the capacity of the program to also achieve regional and catchment outcomes.</li> <li>• One group in particular are planning through their cluster group SWOT analysis the possibility of enhancing vegetation to provide suitable habitat to encourage some local threatened species and uncommon species to breed. This is of particular significance; as it demonstrates landholder's willingness to voluntary conserve such habitats if they have knowledge and motivation.</li> <li>• holistic approach of environmental improvement. Such examples include becoming a member of the Greenhouse Challenge Program, which has resulted in a million dollars a year saving in electricity costs due to change in managing paddy warehouses, to signing of</li> </ul> |

| Projects        | Evidence of improved NRM and environmental outcomes  |
|-----------------|--|
|                 | <p>National Packaging Covenants to manage waste.</p> <ul style="list-style-type: none"> <li>• A cluster group member identifying an issue with water logging in a paddock as a result of undertaking the business analysis (SWOT tool). As a result 20,000 salt bushes have been planted over the past year. To take it a step further; the landholders are inter-row planting crop between the salt bush and also utilising rice straw mulch for another paddock to a) reduce the need to burn b) increase productivity in the paddock.</li> <li>• A landholder zoning their farming system based on economic return, land use and capacity to generate environmental outcomes. As a result 120 hectares zoned 'green', is only strategically grazed for 2 weeks for lambing every year.</li> </ul>   |
| <b>VFF</b>      | <ul style="list-style-type: none"> <li>• Findings from Evaluation Reports A and B list the following actual or planned practice changes: <ul style="list-style-type: none"> <li>○ Roadside tree planting.</li> <li>○ Adjust stock numbers for environmental asset protection due to drought.</li> <li>○ Started fencing eroded gullies in recognition of how important it is for soil and water.</li> <li>○ Fenced off dams and completed land class fencing.</li> <li>○ Protected the wetlands to bring the Brogas back.</li> <li>○ Changed to biological farming.</li> <li>○ Fence off red gums.</li> <li>○ Indigenous grass regeneration.</li> <li>○ Agroforestry.</li> </ul> </li> <li>• All 10 Victorian CMAs and the Victorian Catchment Management Council are very supportive of the unified EMS activity. EMS is integral to many of their Regional Catchment Investment Plans and therefore CMAs are very keen for investment in EMS programs to continue, especially if they are industry-owned.</li> </ul> |
| <b>Wine</b>     | <ul style="list-style-type: none"> <li>• The two year timeframe of this project means that it is not yet possible to gauge environmental outcomes. Further, regional monitoring of biophysical environmental condition is deemed to be the role of catchment management authorities and NRM bodies and hence is not a role of AWIS.</li> <li>• Evidence of improved natural resource management is expected to be provided when 2007 AWIS survey results are provided post-vintage.</li> </ul>   |
| <b>Red meat</b> | <ul style="list-style-type: none"> <li>• Producers who are accredited under the LPA QA environmental module will have to demonstrate continuous improvement to maintain their accreditation.</li> <li>• The continuous improvement of production practices will deliver improved natural resource and environmental outcomes.</li> <li>• Given the production practices of the grazing industries have such a large geographical footprint, it is envisaged that incremental change will deliver widespread environmental benefits.</li> </ul>   |

## An enhanced ability to demonstrate environmental stewardship to domestic and international markets

| Projects     | Evidence of an enhanced ability to demonstrate environmental stewardship to domestic and international markets   |
|--------------|--|
| Cotton       | <ul style="list-style-type: none"> <li>• 2 out of 4 shipments of 'BMP certified' cotton sold as 100 % Australian cotton garments in a Japanese department store - sold under the store brand "Good – i", with an in-store promotion campaign based on both the Australian and sustainability attributes of the cotton used to make the garments.</li> <li>• Two approaches to demonstrating good environmental stewardship were adopted: one focussed on developing a brand, the supporting structures for delivering on the brand promise and then making sales under that brand that would highlight (demonstrate) the environmental stewardship, and the second approach focussed on developing and strengthening relationships with international and domestic organisations with an interest and involvement in cotton sustainability issues.</li> <li>• WWF-Australia undertook a case study of the Australian cotton industry BMP Program, which highlighted the following strengths:               <ul style="list-style-type: none"> <li>○ the industry commitment to and leadership of the BMP Program, (tool development, provision of staff and other resources, development of audit program and trained auditors); and</li> <li>○ the structure and content of the BMP Manual (practical, wholefarm approach, and being 'more outcome focussed than an EMS' (i.e. ISO 14001)).</li> </ul> </li> <li>• A number of areas for improvement were also identified, including:               <ul style="list-style-type: none"> <li>○ better development and collection of baseline data on both practices and resource condition; and</li> <li>○ better engagement with the general public.</li> </ul> </li> <li>• High level linkages, presentations and participatory roles in international organisations due to Australian cotton industry perception as world leaders in environmental management - International Cotton Advisory Committee (ICAC) presentations in 2005 and 2006; Chair of Expert Panel on the Social, Economic and Environmental Performance of cotton production; presentation to Better Cotton Initiative (initiated by WWF and IFC).</li> </ul> |
| Dairy        | <ul style="list-style-type: none"> <li>• Lack of demand from consumers, and therefore milk companies, for farmer adherence to best management practice.</li> <li>• This is changing as the community becomes more aware of climate change and resource use (particularly water) and new markets are explored. Eg. Japanese requirements for cheese are encouraging Warrnambool Cheese and Butter to adopt sustainable processing operations and good environmental management practices among their suppliers.</li> </ul>  |
| Horticulture | <p><b>Retail linkages</b></p> <ul style="list-style-type: none"> <li>• Meetings held with Coles and Woolworths staff to discuss the</li> </ul>   |

| Projects | Evidence of an enhanced ability to demonstrate environmental stewardship to domestic and international markets  |
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|          | <p>development of the guidelines and Environmental Code, discuss the potential environmental requirements of these retailers and the direction/s in which they may be heading. both retailers welcomed the opportunity and have come to expect a regular update. senior business managers for produce, quality managers, quality auditors and national procurement staff. Their level of interest has exceeded expectations.</p> <ul style="list-style-type: none"> <li>• Coles: currently reviewing all certification requirements and actively interested in the Horticulture for Tomorrow project. The existing Coles benchmark, QC-F2, is being benchmarked against a number of Australian and international QA standards and codes including the Global Food Safety Initiative and EurepGAP. environmental modules for Freshcare and SQF2000CM are of interest. Senior Coles quality staff attended the Environmental Assurance Workshop in Hobart in November 2004. Fresh Food Quality Manager Andria Lappas gave the 120 plus audience an assurance that Coles would prefer to adopt a system that had industry support so long as credibility and capability could be demonstrated.</li> <li>• Woolworths management are interested, but less participatory, attended the national launch of Version 1 of the guidelines in Sydney in November 2004 and gave verbal support of the initiative. Woolworths staff are weighing up the alternative systems and approaches before deciding on a way forward. also indicated that no intent to commit to modifying supplier requirements to incorporate environmental aspects until the Horticulture for Tomorrow guidelines were finalised.</li> </ul> <p><b>NGO contact</b></p> <ul style="list-style-type: none"> <li>• The Australian Conservation Foundation (ACF) and the World Wildlife Fund (WWF) formally invited to comment on the draft Guidelines in October 2005 and extract some feedback and advice from the groups on the overall Horticulture for Tomorrow program. both groups agreed Responses received from both groups in January 2006:</li> <li>• Guidelines feedback: <ul style="list-style-type: none"> <li>○ The Guidelines are a very good initial voluntary tool for environmental assurance for horticulture, i.e. it is simple; provides detailed advice; and it is focused on outcomes.</li> <li>○ It is and needs to be a whole of farm management approach.</li> <li>○ Suggestions for the Guidelines include the need to include further references for further information; better structure for the checklist to show a level from low to best practice; and improvements to the biodiversity section.</li> <li>○ Both groups questioned whether there was to be an audit component to the Guidelines.</li> </ul> </li> <li>• General feedback: <ul style="list-style-type: none"> <li>○ Both think the industry involvement and support for the Guidelines is great.</li> <li>○ Both groups advise that horticulture should benchmark its</li> </ul> </li> </ul> |

| Projects       | Evidence of an enhanced ability to demonstrate environmental stewardship to domestic and international markets  |
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|                | <p>practices now to guide implementation and adoption and to set targets for change.</p> <ul style="list-style-type: none"> <li>○ To encourage adoption and ensure industry targets are met Government and industry should invest together in extension activities.</li> <li>○ Also to encourage adoption Government and industry should look into implementing a grower rewards programme.</li> <li>○ Environmental assurance should be integrated within an overall strategy that engages internal and external stakeholders.</li> </ul> <ul style="list-style-type: none"> <li>● Overall feedback: <ul style="list-style-type: none"> <li>○ Overall, the comments were very positive and supportive of this approach. HAL and the ILG were very appreciative of both groups input. Contact with the groups will be maintained into the future.</li> </ul> </li> </ul>  |
| <b>Pork</b>    | <ul style="list-style-type: none"> <li>● Environmental Stewardship Awards – inaugural awards presented at Pan Pacific Pork Expo 2006 (next round in 2008) 5 State winners and 1 national winner Environmental Stewardship winners have been used to promote good environmental management, and APL's <i>ESP project</i> to producers, regulators and the general community (media stories).</li> <li>● An environmental accreditation program has been implemented based around EnviroCheck (provides assessment framework for demonstrating environmental performance) using APL accredited auditors. All the pilot ESP piggeries were audited against APL's EMS Standard in late 2006/2007.</li> <li>● APL is now investigating the market potential, and industry support, for a Certified Trade- Mark covering quality, welfare and the environment for use in the retail and/or wholesale marketing of pork although in the medium term there appears to be little likelihood of increased payments due to participation in APL's EMS program.</li> <li>● If APL can achieve its goal of 40% industry coverage then it will be able to demonstrate a high level of environmental stewardship within the industry through EnviroCheck.</li> <li>● Key staff within regulatory authorities are aware of APL's ESP project.</li> <li>● APL is investigating the potential to use APIQ to support demonstrable performance in the field of quality, food safety, welfare and environmental stewardship.</li> </ul> |
| <b>Seafood</b> | <ul style="list-style-type: none"> <li>● Governments are responding to community pressure for sustainable resource use and have brought in a range of measures to demonstrate environmental stewardship including requirements for seafood exports under the EPBC Act.</li> <li>● Seafood EMS Pathways project includes the SSA certification scheme.</li> <li>● Anticipated that in the future an independently certifiable Australian Seafood Standard – Sustainability which will capitalise</li> </ul>  |

| <b>Projects</b>     | <b>Evidence of an enhanced ability to demonstrate environmental stewardship to domestic and international markets</b>  |
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|                     | <p>on SSA's investments in EMS, FRDC's investments in ESD and government investments in fisheries assessments will be developed to further demonstrate environmental stewardship to domestic and international markets.</p>  |
| <b>Sugar</b>        | <ul style="list-style-type: none"> <li>• Ability to demonstrate environmental stewardship has been increased, particularly the FMS Check risk assessment questionnaire which gives a graphical and written record of the extent to which cane farmers meet world's best practice in seven key areas of economic, environmental and social performance for their farms.</li> </ul>  |
| <b>Chicken meat</b> | <ul style="list-style-type: none"> <li>• Currently industry does not need to meet specific environmental requirements for domestic and international markets, however a number of major processors have quality assurance programs such as ISO 9002 and HACCP that growers need to achieve.</li> <li>• A recognition system for individual growers who have demonstrated adoption of EMS practices is currently being developed and implemented.</li> <li>• Envisaged that processors will communicate to markets that the industry has high EMS performance record as part of the requirements of customers i.e. retailers and fast food chains.</li> </ul> |
| <b>Eggs</b>         | <ul style="list-style-type: none"> <li>• EMS is now an integral and mandatory component of the industry's national egg quality assurance program (ECA) and endorsement of this program will soon be advertised nationally, with promotions to appear on egg packaging (cartons).</li> <li>• Standardising the auditing process nationally and the third-party auditing of ECA has provided documented evidence of an egg business's environmental credentials that can be demonstrated not only to the Australian public and the domestic consumer, but also to international markets of Australian egg products.</li> </ul>                                 |
| <b>Rice</b>         | <ul style="list-style-type: none"> <li>• Little evidence required in markets to demonstrate environmental performance.</li> <li>• An unintended outcome is the use of the Environmental Champions Program to demonstrate our environmental credibility in the sale of Australian 'Saki' rice wine in major liquor outlets across Japan. Each product such as Saki is given a bar code where consumers can take the product to a scanner &amp; when scanned, up comes information about the program. This is giving Japanese consumer's greater confidence in the product.</li> </ul>   |
| <b>Wine</b>         | <ul style="list-style-type: none"> <li>• Identification of market drivers for environmental assurances has been a key objective for AWIS.</li> <li>• AWIS programme aims to deliver performance information in response to the highest profile issues identified in key export markets. As a result of findings, climate change, biodiversity, water and waste issues and green procurement will be the focus of environmental management activities going into the future.</li> </ul>   |
| <b>Grains</b>       | <ul style="list-style-type: none"> <li>• Currently no hard market signals for a need for formal EMS on-farm, some audiences do seek some assurance of environmental stewardship from grain producers. The acceptance of best</li> </ul>  |

| <b>Projects</b> | <b>Evidence of an enhanced ability to demonstrate environmental stewardship to domestic and international markets</b>  |
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|                 | <p>management practices as an indicator of environmental stewardship by several audiences (IPSOS survey) is an important outcome.</p> <ul style="list-style-type: none"> <li>• Used in conjunction with grain handlers and marketers, the database could provide both QA and Environmental Assurance needs, when and if required, at little or no cost to farmers, apart from the time taken by them to enter their data.</li> </ul>   |
| <b>Wool</b>     | <ul style="list-style-type: none"> <li>• The wool industry now has an improved understanding of the market requirements for environmental stewardship of a range of audiences, specifically: major customers of Australian wool internationally; and local audiences such as government, CMAs, banks, environmental groups, farming organisations and grower groups.</li> <li>• The LandLeader database will provide the wool industry with an opportunity to demonstrate its environmental credentials through the use of aggregated farm practice data.</li> <li>• The industry now has the potential to exploit niche marketing opportunities and to use environmental stewardship as a sound marketing platform.</li> </ul>  |
| <b>Red meat</b> | <ul style="list-style-type: none"> <li>• The red meat industry now has two approaches to demonstrate environmental stewardship (at individual enterprise and industry level) which is beneficial as it is still unclear how the demand for environmental assurance will evolve.</li> <li>• If the demand for environmental assurance begins to require third party certification, then the red meat industry has a product in LPA QA. If environmental assurance can be provided via a less invasive, industry led campaign, then the red meat industry has a product in Landleader.</li> <li>• The MLA marketing department has strong domestic and international linkages, which should be able to utilise Landleader data to support "green" claims.</li> <li>• Individuals, co-operatives and supply chains can now use the LPA QA environmental module to underpin eco-labels.</li> </ul> |
| <b>Organics</b> | <ul style="list-style-type: none"> <li>• Certified organic market place already pays a premium to farmers for perceived environmental and health benefits. By adopting EMS processes within the organic certification program, the organic sector is planning to establish its environmental credentials with governments.</li> </ul>  |

## Lessons

### Content

| Project | Content   |
|---------|---|
| Cotton  | <ul style="list-style-type: none"> <li>• <b>The realisation of value of the audit process resides in the wallet of the person who has to invest the money, time and effort.</b> 80% of external stakeholders strongly agreed that there was value in the audit process, compared to 50% of audited growers, and about 30% of unaudited growers.</li> <li>• <b>Lack of involvement in the certification aspects of the BMP Program does not equate to a lack of best practice adoption.</b></li> <li>• <b>An emphasis on certification numbers carries with it the risk of reducing focus on identifying the specific practice changes that have been implemented.</b> This reduces the focus on identifying the specific benefits that have been attained through implementing that practice. Ultimately, <b>auditing is a means to an end</b> - a means of measuring practice change.</li> <li>• While the majority of the cotton growers who have undertaken an audit speak positively about that experience, the testimonies are usually in general terms. <b>General benefits do not provide enough incentive to entice those sceptical of the merits of the audit process to test that scepticism.</b></li> </ul>  |
| Dairy   | <ul style="list-style-type: none"> <li>• There is a <b>need for improved extension processes</b> for NRM BMPs.</li> <li>• The most successful programs for facilitating on farm change in NRM are the integrated NRM programs based on inter- agency collaboration, one on one extension for complex issues, and financial incentives.</li> <li>• <b>Processes to link catchment targets with farm practices are a development priority</b> for most regions.</li> </ul> <p><b>DairySAT</b></p> <ul style="list-style-type: none"> <li>• <b>A hardcopy booklet is well received by farmers and facilitators but a disadvantage is it cannot be easily updated.</b></li> <li>• <b>One to one facilitation, using respected and known facilitators, is more likely to lead to action plan development and implementation.</b></li> <li>• <b>Farmer driven participation and selection of priority issues to be dealt with is important</b> (intrinsic motivations) <b>rather than compliance to regulations</b> (extrinsic motivations).</li> <li>• <b>Broad collaboration has been important in achieving the final document and regional ownership has been enhanced by ensuring the “regionalisation” process used local resources and contacts.</b></li> </ul> <p><b>BizLINK</b></p> <ul style="list-style-type: none"> <li>• <b>Importance of having facilitators with interest/expertise in both financial and environmental management.</b> More training was</li> </ul> |

| Project | Content  |
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|         | <p>needed for Taking Stock (or equivalent) facilitators prior to their involvement. Projects were hindered by lack of enthusiasm and understanding by people interested in financial rather than environmental management.</p> <ul style="list-style-type: none"> <li>• <b>The concept of ‘embedding NRM into farm business planning packages’ may be inappropriate.</b> Farmers make decisions for a number of reasons, including lifestyle, inherent values and social norms. Building a business case may only appeal to those farmers who make decisions for purely economic reasons.</li> <li>• <b>A more holistic approach builds business skills while allowing farmers to make their own decisions.</b> This was evident at the Young Farmers Group, where far higher participation and adoption rates were achieved.</li> </ul> <p><b>BetterPRAC</b></p> <ul style="list-style-type: none"> <li>• <b>Good facilitators make good projects.</b></li> <li>• <b>Self driven (farmer driven) projects are more successful.</b></li> <li>• Given the right stimulus and information, <b>farmers are keen to adopt best practice NRM.</b></li> <li>• <b>Importance of flexibility for boosting stakeholder engagement.</b> DairySAT flexibility (from awareness raising to action planning) enabled a broader cross section of farmers to be engaged.</li> <li>• <b>Information packages are not integral to success, peer to peer learning is more important.</b></li> <li>• <b>Integration of farm mapping into programs can contribute significantly to farmer engagement and understanding.</b></li> <li>• <b>The incorporation of a peer review into the planning process assists implementation of action plans.</b></li> <li>• <b>Establishment of collaborative partnerships with CMAs and other NRM agencies</b> (through the linkage of CMA strategic plans and farmer targets) <b>enhances farmer motivation/participation and allows for regional differences in priorities.</b></li> <li>• <b>Importance of dedicated, optimistic and committed farmers and facilitators, in enabling projects to succeed.</b></li> <li>• Leveraging of significant amounts of further funding as a result of the significance of the NRM programs being implemented has enabled quick implementation of action plans.</li> <li>• <b>Integrity of the science base behind recommended BMPs engenders confidence in farmer adoption.</b></li> <li>• <b>Dairy farmer advocates are critical to success.</b> Nearly all DfT On the Ground projects relied upon farmer advocates to recruit farmers. Selecting the appropriate farmer was not always easy and initial failures in SA and GippsDairy were related to the selection of farmers who where not trusted among the farming community. Being perceived to be a green farmer was not helpful. Many of the farmer advocates continue to show a strong interest in the projects and have become members of regional NRM networks. As a result of the activities conducted through the DfT On the Ground program, all industry stakeholders support DairySAT as the industry EMS tool of</li> </ul> |

| Project             | Content   |
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|                     | <p>choice.</p> <p><b>Limitations of DairySAT</b></p> <ul style="list-style-type: none"> <li>• If DairySAT is delivered as a stand alone tool farmers can feel stranded, having a plan but no support for implementing change. When delivered as part of an integrated program there is no continuous improvement process or follow up strategy embedded into DairySAT.</li> </ul> <p><b>Limitations of the BetterPRAC</b></p> <ul style="list-style-type: none"> <li>• One to one facilitation of DairySAT and on-going support through the coordination and provision of workshops is labour intensive. In addition, <b>trusted and experienced facilitators can be expensive and difficult to find.</b></li> <li>• <b>Priority should be given to delivering programs in areas where dairy is most likely to impact on catchment health.</b></li> <li>• Good technical advice is not always available, and some of the suggested change is experimental in nature, thus <b>farmers who are risk adverse will not be attracted to make changes.</b></li> </ul>   |
| <b>Horticulture</b> | <ul style="list-style-type: none"> <li>• <b>Input from respected and experienced industry experts during content development gives the content credibility.</b> This was evidenced by having respected and experienced industry experts on the Technical Steering Committee to develop the Guidelines for Environmental Assurance in Australian Horticulture. Maintaining the integrity of the TSC membership ensured the credibility of the ultimate document.</li> <li>• <b>Encouraging technical critique of draft content is vital for increasing industry ownership.</b> Hosting a technical critique of the draft guidelines as part of a credible industry QA Conference was vital to increasing industry ownership of the project, by allowing technical experts to get involved in a hands-on way.</li> <li>• <b>Importance of conducting on-farm trials of content, to ensure this integrates with existing systems.</b> Trialling the draft guidelines on-farm, to ensure the guidelines integrated into existing QA systems and complemented existing schemes while being practical, flexible and user-friendly. Strong planning, communication and effective, experienced personnel ensured the integrity of the trials and ultimately the final product.</li> </ul> |
| <b>Pork</b>         | <p><b>EMPs</b></p> <ul style="list-style-type: none"> <li>• <b>EMS tools need to be simple and user-friendly in order to be widely adopted.</b> The EMP template was too cumbersome and static. The EMP basically sat on the shelf as a reference document rather than being used as an integral part of an operational management system. Most producers found the EMP documents to be invaluable for completing development applications. The process of writing an EMP, as facilitated via APL's training course, was also assessed to be valuable.</li> <li>• There is a broad consensus among ESP trial participants that <b>if EMS is to be taken up more widely it must be in a streamlined form that is integrated into existing APIQ auditing and administration processes.</b> Management system integration is</li> </ul>  |

| Project               | Content  |
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|                       | <p>required both for cost reasons and to ensure that environmental management is run as an integral part of production.</p> <p><b>EnviroCheck</b></p> <ul style="list-style-type: none"> <li>• <b>Tools that result in a pass-fail mark need to consider ‘mandatory pass’ questions, to ensure that critical aspects of environmental management are met before a ‘pass’ mark is achieved.</b> A number of problems were found with EnviroCheck version 1. This version had a pass-fail mark based on the overall score. This meant producers could pass the overall EnviroCheck despite having failed critical aspects – such as protecting waterways from effluent spills. EnviroCheck was modified to include “mandatory pass” questions. Corrective Action Requests in response to non-conformances were added to EnviroCheck version II to make it a better auditing tool.</li> <li>• <b>Producers tend to fall out of the system over time if there is no direct economic benefit.</b> Even where a program offers economic improvements, producers may internalise these processes and then drop the more burdensome elements including external audits and participation fees. All the ESP pilot producers have invested considerable time and money into the EMS process and have internalised many of the learnings. While concerns remain in the pork industry regarding the financial and administrative burden associated with EMS, APL is seeking to manage the operation of its EMS program in such a way as to reduce these burdens to acceptable levels.</li> </ul>   |
| <p><b>Seafood</b></p> | <ul style="list-style-type: none"> <li>• The key to the Seafood EMS model is the Seafood EMS Resources that help de-mystify EMS for seafood businesses and organisations. They are designed to enable fast customisation to enable widespread seafood industry adoption of EMS.</li> <li>• <b>Industry champions, who themselves have commenced implementing EMS, are able to convey powerful messages that can be used to encourage others to commence the EMS journey.</b> The project provided support to enable industry champions to participate in regional workshops, outside their normal areas of operation. This achieved cross fertilisation of ideas to overcome challenges as well as assist the level of EMS uptake by the seafood industry generally.</li> <li>• <b>One of the key benefits of developing an EMS is the avenues that it creates for formal stakeholder engagement.</b> Participation of stakeholders in the development and implementation of policies, programs and decision-making processes related to the management of natural resources is seen as a pre-requisite to achieving successful environmental, social and economic focussed outcomes. Whilst stakeholder participation is now seen as a key factor, difficulty often arises when attempting to consult and gain agreement from the multitude of stakeholder groups, each with varying motivations for their involvement.</li> <li>• <b>The missing link is a sustainability standard</b> which enables seafood businesses, large and small, sectors, groups and associations to identify and achieve the most appropriate certification option based on their business needs and objectives</li> </ul> |

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|                     | and taking into account regulatory requirements.   |
| <b>CANEGROWERS</b>  | <ul style="list-style-type: none"> <li>• <b>Involve end users in the design and structure of content and begin with the end in mind so that the end is achievable and the activities to work towards are realistic.</b></li> <li>• <b>A project steering committee needs to have good carriage in terms of direction setting.</b> The Canegrowers steering committee had no executive authority to make changes to the contract between SRDC and the contractor. This group effectively become an information-sharing group outside of the key contractual arrangements and with limited influence over the major contracting parties.</li> </ul>  |
| <b>Sugar</b>        | <ul style="list-style-type: none"> <li>• <b>End-users should be centrally involved in the design and structure of content from the start.</b> This includes the advisory staff, who will most probably be key users of the 'Tools'.</li> <li>• <b>Need to have resources available to support FMS within regions.</b></li> <li>• <b>Important to have a simple process</b> for growers to document and report what they are doing.</li> <li>• <b>Develop materials that are appropriate to the end users.</b> The focus was on an internet-based system despite a low level of computer literacy by many growers and lack of paper-based FMS materials.</li> <li>• <b>Need for a specific purpose to attract growers to do an FMS</b> (eg salinity, acid sulphate soils, water quality etc).</li> <li>• <b>Need to have a solid foundation of industry support</b> for such programs; driven more by committed industry people and market demand rather than the 'top-down' approach.</li> <li>• <b>Farmers consulted during the project were generally opposed to auditing and certification of FMS by other parties.</b></li> </ul>  |
| <b>Chicken meat</b> | <ul style="list-style-type: none"> <li>• <b>Importance of keeping materials simple and free of jargon.</b></li> <li>• <b>Importance of involving stakeholders in content development,</b> throughout the entire project. The direct contribution by industry and ownership of the content will be reflected in enhanced adoption of the EMS process.</li> <li>• <b>Use of professional engineers and scientists when designing content provides a solid scientific basis.</b></li> <li>• The content material may have been maximised by the inclusion of information more specific to regional natural resource management issues. <b>Greater communication with CMAs and NRM bodies to include particular information on how growers impact on the wider catchment environmental issues may have been useful</b> for growers.</li> <li>• <b>Using industry champions to spread the EMS concept at a grass roots level has been a successful way of spreading information.</b></li> <li>• <b>Some auditors have felt that they would be better off being 'mentors' to growers rather than auditors,</b> as they found it hard to be impartial and not give advice for on-farm management. This</li> </ul> |

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|         | <p>adaptation of their roles to become mentors will also contribute significantly to the extension of the EMS principles and provide growers with on-farm support prior to EMS auditing.</p> <ul style="list-style-type: none"> <li>• As workshop improvements, participants suggested that fewer folders and more time could be helpful, that the EMS should be broadened to include OHS, biosecurity and animal welfare and that the workshops should be made certifiable under the national training framework. <b>Ultimately, processor requirement and consumer demand will determine the extent of EMS adoption for the meat chicken industry.</b></li> <li>• The State Committees set up as part of the EMS Pathways Project were successful in a few states. The New South Wales state committee was not so successful due to the large geographical area that the farmers are spread over within the state.</li> <li>• <b>Utilising second party auditors is an effective way of industry self-improvement.</b></li> </ul>  |
| Eggs    | <ul style="list-style-type: none"> <li>• Inclusion of EMS into an existing, proven and accepted quality assurance system (ECA).</li> <li>• Material presented in a clear, user-friendly manner.</li> <li>• <b>Stakeholder input into content development allows for increased industry ownership and in the future, increased adoption of EMS.</b></li> <li>• Professional engineers and scientists' input into content development, to provide solid scientific basis.</li> </ul>   |
| Rice    | <ul style="list-style-type: none"> <li>• <b>Keeping benchmarks relatively simple allows producers to improve gradually and gain a sense of achievement, this boosts enthusiasm to continue through the program.</b></li> <li>• The ECP is designed to operate as an integrated management tool, this provides flexibility for producers and ensures that the program remains relevant.</li> <li>• <b>Tools alone are ineffective- need to give people the capacity to use the information generated by the tool, so that they are ready for change.</b></li> <li>• <b>A significant barrier to adoption is telling producers what to do, rather than giving them practical support to implement change on-farm.</b> Therefore, tools that enable producers to have input into the program are encouraged, as well as those that provide a clear financial benefit for a farmer's business (e.g. cost savings, time savings).</li> <li>• <b>Written tools are useful for promoting discussion and transfer of ideas, need to be simple and time efficient, and must be supported by a process for implementation of ideas/actions.</b></li> <li>• <b>Mechanisms for effectively communicating change management are vital.</b></li> </ul> |
| VFF     | <ul style="list-style-type: none"> <li>• <b>Key elements to ensure consistency in developing an EMS</b> include being based on the ISO 14001 standard; providing direction for EMS projects operating in the state, whilst compatible with, and informing national priorities for all industries; EMS delivery projects</li> </ul>   |

| Project | Content  |
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|         | <p>incorporating statutory regulations, industry guidelines and codes of practice, and Regional Catchment Strategies and targets of the respective CMAs; aligning with industry approaches and EMS tools, and Catchment-based BMPs; and considering relevant catchment based programs that involve whole farm / property management planning approaches and existing networks such as Landcare.</p> <ul style="list-style-type: none"> <li>• <b>Importance of Service Provider Engagement to expand EMS understanding and implementation.</b></li> </ul>   |
| Wine    | <ul style="list-style-type: none"> <li>• <b>Draw on existing strategies and guidelines to refocus industry attention and encourage industry to take advantage of the tools that they already have at hand.</b> In regions where these documents exist, National Indicator Questions have been linked back to specific sections or page numbers in existing strategies and guidelines to increase their use and avoid having to develop new AWIS resources that would essentially provide the same information.</li> <li>• <b>If NRM bodies and CMAs are seeking to have their plans acknowledged and adopted by regional stakeholders, they need to avoid jargon, acronyms and technical terms in their public documents and recognise that the majority of their target market do not have a background in NRM and many require little incentive to disengage with these organisations</b></li> <li>• <b>Importance of simplicity and brevity of materials, to engage growers and reduce confusion.</b> E.g. the spray diary insert questions.</li> <li>• Importance of addressing both viticulture and viniculture in any EMS for the national wine industry. This is also necessary in order to match assurances being made by other wine producers in the international market.</li> <li>• A national report is required to provide recognition for regions and companies participating, to facilitate benchmarking of results between regions, and to provide some interpretation for management implications. This report will be produced based on survey summary results voluntarily provided by participating regions and companies.</li> </ul> |
| Grains  | <ul style="list-style-type: none"> <li>• NRM groups have expressed interest in using this project in evaluating their own NRM issues and target progress. This is a beneficial use of the project, since it goes directly to how this work links to deliver outcomes for the environment by basing it on changes in practice employed by farmers.</li> <li>• <b>The use of the ‘standard’ EMS self assessment and other tools will not provide the outcomes needed by the industry and the audiences for environmental reporting.</b> Further, the audiences do not like, nor seek, such systems for reporting.</li> <li>• <b>Reliance on other organisations developing tools / systems or having input can delay project progress</b> and assumes the other organisations will deliver (which needs the other organisation to decide there is a need and enact).</li> </ul>  |
| Wool    | <ul style="list-style-type: none"> <li>• There already exist many EMSs which have specific content. <b>It is important to not reinvent wheels but to harness existing</b></li> </ul>   |

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|          | <p><b>information and apply it.</b></p> <ul style="list-style-type: none"> <li>• <b>Producers and much of the market for Australian wool do not require (at this stage) a system where being based on ISO 14000 is mandatory</b> (although any system needs to provide opportunities for producers to link into such systems if they so desire).</li> <li>• <b>Need to consider time constraints of farmers when developing materials.</b></li> <li>• <b>Importance of collecting objective data in relation to producer practices, to develop environmental and livestock management credentials for industry.</b> Most existing EMSs do not capture objective data in relation to key practices. This is seen as a limitation that the project sought to overcome. To develop environmental and livestock management credentials for the industry, it is critical to establish a data base to hold and analyse data collected from producers. The database should also have an ability to aggregate data to provide tailored reports to audiences such as industry, customers, CMAs, Government etc.</li> <li>• <b>In the absence of clear market drivers, the provision of some form of ‘benefit’ back to farmers is very important.</b> The approach LandLeader took was to provide participants in the survey with a tailored report on their practices and how they compare with other farmers in their area (and against existing industry best practice).</li> <li>• Because of the diverse geographical location and climate of broadacre farms (especially wool) setting national best practices is problematic. While the current trials are on a national basis, we believe that the <b>BMPs will need to be regionalised.</b></li> </ul> |
| Red meat | <p><b>Cross industry harmonisation</b></p> <ul style="list-style-type: none"> <li>• <b>Need to develop a consistent message for farmers as to why they should be involved in EMS.</b> Drivers include social licence to farm, financial benefits, improved natural resource condition, minimising further regulation of farming activities, meeting (future) market requirements, market access and food safety requirements.</li> <li>• <b>Any system needs to be kept as simple as possible and build on existing industry programs and efforts.</b></li> <li>• <b>Any system should focus on a small number of critical issues</b> and recognise that farmers’ generally keep ‘mental’ records. The complexity of the system should be determined by what is needed to be credible, and /or by what individual markets require.</li> <li>• <b>3rd party assessment is not necessarily required.</b> Should it be required, then practical or industry expertise is essential to ensure that the auditor (and audit) has credibility with producers.</li> <li>• <b>Interactions with CMAs are crucial.</b> Regional conditions and / or farming systems may require a need for specific differentiation.</li> </ul> <p><b>Business benefits of NRM</b></p> <ul style="list-style-type: none"> <li>• Traditional gross margin analysis revealed some benefit in NRM, however, the data did not build a compelling case for significant upfront investment.</li> </ul>  |

| Project | Content  |
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|         | <p><b>Demonstrating Environmental Stewardship</b></p> <ul style="list-style-type: none"> <li>• <b>Broadacre producers are already collecting a lot of information which could be beneficial for demonstrating environmental stewardship.</b> While there is an expectation that certain information will need to be collected at the farm level, there is a strong resistance to ask farmers for information or have them report against environmental indicators. There was a reluctance by many stakeholders to be seen to be imposing, enforcing or dictating information expectations on Broadacre producers, who are perceived to be already overburdened with a proliferation of reporting requirements. In addition, <b>many ‘information seekers’ are uncertain of exactly what information they require or how best to access it.</b></li> <li>• <b>The preference for most information seekers is to look to other sources, such as third party collection, ABARE, ABS, agencies and industry data.</b> Satellite imagery is utilised to varying degrees by regulators and government agencies and it is envisaged by most that this will increase into the future.</li> <li>• <b>Government agencies and regional groups vary enormously in their requirements.</b> Beyond an expectation that Broadacre producers are compliant with regulation, there were very few mandatory requirements cited by Government agencies.</li> <li>• <b>The Broadacre industry must take a lead role in defining the concepts of ‘duty of care’ and ‘environmental stewardship’, and drive the development of a national code of conduct / best practice.</b> While a coordinated national approach is considered essential, it is recognised that many environmental indicators and outcomes must be set at the regional and farm level. For many, simple indicators should be set at the farm level and more complex indicators to measure catchment health.</li> <li>• <b>To effectively demonstrate environmental stewardship, the code of conduct / best practices must be built on a credible framework and clearly define a minimum level of acceptable conduct.</b> Within this framework, there is a general acceptance for adopting a ‘continuous improvement’ process which provides an initial focus on creating awareness and allows Broadacre producers to enter at different levels, according to their own farm situation and to make advancements within their capabilities and resource base.</li> <li>• <b>The alignment of industry with regional groups is critical to meeting the overarching expectation of government, regional groups and environmental groups that Broadacre producers will assist in meeting catchment targets.</b></li> </ul> <p><b>Natural resource monitoring</b></p> <ul style="list-style-type: none"> <li>• <b>The importance of presenting an integrated approach to sustainable production for producers.</b> The integration of NRM tools within existing MLA programs is a positive way of achieving this integration.</li> <li>• <b>Monitoring of the on-farm natural resource base can provide crucial management information which can assist in preserving and maintaining long term productivity and asset values.</b> This</li> </ul> |

| Project          | Content  |
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|                  | <p>message should be communicated in all relevant MLA programs and materials.</p> <ul style="list-style-type: none"> <li>• <b>It is important to broaden the spatial scope for programs to ensure that as many producers as possible are provided with the opportunity to improve their management practices.</b></li> </ul> <p><b>The LPA QA environment module</b></p> <ul style="list-style-type: none"> <li>• Based on the poor adoption of CattleCare, <b>it would be better for an environmental module to be stand-alone.</b></li> <li>• <b>The module must be outcome focussed and not prescriptive.</b> It was felt some of the draft Performance Indicators were too prescriptive.</li> <li>• Financial drivers or incentives do not exist for uptake of this module by producers.</li> <li>• <b>The environmental module must be linked as close as possible to productivity.</b> Even the name should reflect this productivity link.</li> <li>• If auditing is to proceed, the auditor needs to be skilled and interested in the environment.</li> <li>• <b>Collaboration with CMAs is important to stimulate incentives.</b></li> <li>• Avoid using the word ‘enhance’, i.e. ‘maintaining’ a productive environment should be the goal.</li> </ul> |
| <b>Organics</b>  | <ul style="list-style-type: none"> <li>• <b>Importance of engaging with producers from the outset.</b> A good definition and case study of EMS presented at the start of the workshop may have quelled farmer fears of “extra work, extra paper work, additional auditing, additional costs” etc.</li> </ul>   |
| <b>QFF</b>       | <ul style="list-style-type: none"> <li>• <b>Communication = monitoring, reporting and marketing.</b></li> </ul>  |
| <b>TFGA</b>      | <ul style="list-style-type: none"> <li>• <b>The need to keep the documentation and recording systems brief.</b> It is important to maintain a clear focus regarding the aims of the tool and resist the temptation to “add another question”.</li> <li>• <b>Brevity, while maintaining integrity, remains a challenge for the development of any tool or system.</b></li> </ul>  |
| <b>WAFarmers</b> | <p><b>Workshop materials</b></p> <ul style="list-style-type: none"> <li>• <b>Presentations need to be in the vernacular of the audience group.</b></li> <li>• <b>It is important to relate to the group with actual examples of the concepts being presented.</b></li> <li>• <b>The message needs to be packaged in small bites, each with a straightforward message.</b></li> <li>• <b>Interaction with the audience through questions and exercises increases their interest and motivation.</b></li> <li>• <b>Participants want material to take home for later evaluation.</b></li> <li>• <b>Goals need to be clearly defined.</b> Broad generalisations such as: “reduce reliance on pesticides” or “improve air quality” are not very helpful. Farmers look for specific and practical elements which they can apply on-farm. They also need to understand that on-farm improvements include upgrades to equipment and facilities, as well as changes to farming methods and other behavioural changes such</li> </ul>   |

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|                   | <p>as vehicle use.</p> <ul style="list-style-type: none"> <li>• Scenario planning was of particular interest</li> <li>• SATs and workshop presentations should be continually revised and upgraded throughout the project to assist in continuing to meet the 'success factors'.</li> </ul> <p><b>Workshop planning</b></p> <ul style="list-style-type: none"> <li>• <b>Timing of the workshops in regional areas is crucial</b>, although not all of the challenges can be anticipated.</li> <li>• <b>It is important to make presentations as inclusive as possible.</b> To this end, presentations were tailored to production groups, industry bodies, environmentally-active groups and regional groups for each workshop.</li> <li>• <b>It is important for individuals to deal with the environmental problems that they themselves have identified as being of most value to their business. It is also important that both information and extension is readily available to help them deal with their identified high priority problem.</b></li> </ul>   |
| <p><b>PGA</b></p> | <ul style="list-style-type: none"> <li>• Widely favoured aspects of the workshops included being able to discuss the issues and developing the Rangecare concept as a starting point for future discussions and programs. The opportunity to develop the initial proposal by the 'grass-roots' participants without 'expert' input was received well by pastoralists. Later workshops provided the opportunity for the industry to present its 'idea' to bureaucrats and experts, where it was met with enthusiasm. <b>This method of progressing the proposal has resulted in the industry having ownership of the Rangecare proposal.</b></li> <li>• In the first round of workshops many attendees commented on the value of introducing the 'EMS' concept to them. <b>Drawing on the experiences of other pastoralists and local 'champions' is a valuable tool in presenting the EMS concept in a non-threatening way and demonstrating its relevance to growers' own situation.</b> This 'inside' approach was critical to the success of this project and would be considered an essential element in any future program.</li> <li>• Other comments about what is required and what pastoralists want to see included the development of a simple EMS style system to demonstrate how this can be applied to a pastoral setting. This is a potential activity for future projects and is probably required before there will be broad scale adoption of any EMS in the WA pastoral industry.</li> </ul> |

## Linkages

| Project | Linkages  |
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| Cotton  | <ul style="list-style-type: none"> <li>• <b>The segregation of supply chain responsibility makes developing an industry focussed co-operative approach to managing issues that are relevant to multiple sectors more complex and therefore more difficult, due to:</b> <ul style="list-style-type: none"> <li>○ The sheer number of relationships that need to be managed make reaching agreement harder, not only because of an increase in the range of perspectives that need to be taken into account and accommodated, but also particularly because of the greater difficulty in identifying specific costs and benefits to each of the individual sectors.</li> <li>○ Increased complexity, and therefore cost, in any chain of custody requirements (necessary to support any branding initiative).</li> </ul> </li> <li>• <b>A theoretical interest in having an industry brand does not necessarily translate into a desire to bring that about</b> if it requires direct funding, as no direct benefit to the bottom line can be discerned.</li> <li>• <b>A united industry brand will have the advantage of a specific and resourced commercial focus; the disadvantage is that the interests of industry and the interests of individual commercial entities are not necessarily aligned.</b> One option that does provide a relatively high level of alignment though is to focus the brand on specific fibre qualities, with the seed companies as the organisations responsible for developing the varieties, then providing the commercial leverage that is perhaps needed to get the brand beyond a theoretical concept.</li> <li>• <b>It is likely that the issue of how to ‘translate’ or ‘link’ farm scale activities to catchment scale outcomes (and the associated monitoring and reporting requirements) will only be solved via incremental improvements in farm management practices, and the passing of sufficient time to allow the impact of changed farming practices to become apparent.</b> Hence the need for: <ul style="list-style-type: none"> <li>○ A strong partnership between the institutions currently primarily responsible for these two scales: catchment authorities and industry.</li> <li>○ Good baseline information on a set of agreed indicators from which to measure the impact of changed farming practices.</li> </ul> </li> <li>• There is sufficient knowledge on a number of current best practices, and a corresponding level of potential on-farm improvement for these practices, for the industry to continue to concentrate on improving the adoption and implementation of known best practices while further work is conducted on the best way of establishing links between the farm and catchment.</li> <li>• <b>Industries should not be responsible for catchment wide monitoring. The role of industry is developing appropriate farm-level indicators in consultation and collaboration with the catchment authority</b> that can then ‘feed up’ to the catchment-level monitoring required of the catchment plan and authority.</li> </ul> |

| Project      | Linkages  |
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| Dairy        | <ul style="list-style-type: none"> <li>• <b>Timelines of projects need to take into account the time necessary to engage and involve stakeholders/partners, particularly where formal arrangements are needed requiring professional advice.</b> The level of churning among NRM agencies adds to the time needed to establish relationships.</li> <li>• <b>Linkages across the industry increase cohesion and information flow, and reduce duplication and confusion regarding best practice NRM. It is also important to allow for regional and farmer differences.</b></li> <li>• <b>Regional coordinators play a critical role in developing and maintaining linkages between industry programs and regional NRM stakeholders.</b></li> <li>• <b>Importance of communication in developing and maintaining linkages.</b> A more comprehensive communication strategy could assist the challenge of keeping all stakeholders informed, particularly those outside the immediate circle of people involved in projects. Cross regional information would benefit all stakeholders, not just NRM coordinators.</li> </ul>  |
| Horticulture | <ul style="list-style-type: none"> <li>• <b>Developing and building linkages with existing programs is essential to reduce duplication and confusion.</b></li> <li>• <b>Importance of effective communication in achieving project goals.</b> A significant factor in the success of Stage 1 was the early recognition of the fundamental importance of effective communication practices in achieving the project's overall goals. This meant that communication was integrated into the basic framework of the project from the first, rather than being 'tacked on' after the project had been fully scoped or was already well advanced. It also meant that adequate resources for communication activities could be identified and locked in early in the planning phase. Due to the controversial nature of the program, there has been a real need to maintain consistent and relevant communication to industry.</li> <li>• <b>Using an external consultant provides a 'clean slate' and previous experience in talking to growers, to drive stakeholder relations.</b> This was a significant factor in the success of the stakeholder program.</li> <li>• <b>Industry case studies are important because they provide practical, real life examples of the experiences and challenges faced by horticulturists establishing, or working to maintain, environmental management systems and assurance processes.</b></li> </ul> |
| Pork         | <ul style="list-style-type: none"> <li>• <b>Using existing resources, linkages and processes increases EMS uptake and reduces costs.</b> APL's linkage with existing APIQ auditors and facilitators has enabled the program to be offered in a cost effective manner to the majority of the industry who are within APIQ already. Integration with APIQ reduces producers' costs by eliminating the transportation elements associated with getting environmental auditors to production sites. Integration reduces APL's administration costs by enabling them to use existing staff and databases. There is broad consensus among ESP trial participants that if EMS is to be taken up more widely it must be via the existing</li> </ul>   |

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|         | <p>APIQ auditing and administration processes. In the medium term, APL aims to use links with State farmers groups and regional NRM bodies to promote EMS.</p> <ul style="list-style-type: none"> <li>• <b>Managing the communication between APL and stakeholders will be critical to achieving the uptake of APL’s EMS program.</b> There have been numerous revisions of APL’s EMS standards and frameworks. One difficulty APL has found is in communicating these changes to participants who may only occasionally use email and are regularly removed from land lines or mobile phone coverage.</li> </ul>   |
| Seafood | <ul style="list-style-type: none"> <li>• <b>Developing and building linkages with existing programs reduces duplication and confusion.</b> Underpinning the industry-wide roll-out of EMS is the <b>need for effective internal and external communication and collaboration with government and others stakeholders.</b> The development of the Communication Support Package comprising tools and targeted training resources relevant to all the sectors of the industry has gone a long way to improving the industries access to communication resources but the benefits of this resource will be strengthened over time.</li> <li>• <b>Key requirements for successful engagement with government</b> (as identified by the engagement of stakeholder study): <b>Networks</b> – A need to recognise the different roles and relationships between and with government; <b>Proven benefits/results</b> of implementing an EMS; <b>Get commitment from the top</b> (Ministers, Senior Govt. officials); and if less government regulation is a goal, then <b>agree to a common vision</b> of what EMS can achieve and <b>find the right person, people and/or department to drive the process.</b></li> <li>• <b>Ongoing linkages can be established with other agricultural industries and their environmental programs via existing networks, attendance at forums and conferences, and informal communication.</b></li> <li>• An EMS provides seafood industry members with a tool to identify priorities and projects and may be useful in the implementation and monitoring of relevant NRM projects.</li> <li>• <b>Good networks of committed people are essential to underpin the necessary cultural change needed to realise the potential business and sustainability outcomes achievable through widespread adoption of EMS.</b></li> <li>• <b>Key EMS lessons for the seafood industry from the agricultural industries:</b> <ul style="list-style-type: none"> <li>○ EMS can deliver key social advantages for participants through a group learning process.</li> <li>○ Farmers have changed farming practices as a result of EMS</li> <li>○ One hundred percent voluntary adoption of EMS is not realistic, but nor is it necessary.</li> <li>○ EMS in the agricultural industries is based at the group or individual level rather than at the enterprise or corporate level. This group learning approach can be a good approach to aiding cultural change among primary producers.</li> </ul> </li> </ul> |

| Project      | Linkages   |
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| CANE GROWERS | <ul style="list-style-type: none"> <li>• <b>Importance of providing clear reporting arrangements, having clear terms of reference and having a single overarching contract for the one project.</b></li> <li>• <b>Activities involving industry leadership on controversial issues, such as environmental issues, should strongly involve leaders within the sugar industry.</b></li> <li>• <b>Strong linkages between industry organisations and any project contractors are important.</b> A project should work with its linkages, rather than try to duplicate them.</li> </ul>  |
| Sugar        | <ul style="list-style-type: none"> <li>• <b>Importance of strong linkages between industry organisations.</b> Of the numerous recommendations made in the Independent Overview review, improved linkages between the Industry organisations were deemed necessary.</li> <li>• <b>Decision-makers need to be involved in programs that involve institutional change and new policies.</b> As seen in other EMS programs across Australian agriculture, leadership is essential for widespread acceptance and adoption of FMS.</li> <li>• <b>Communication between all parties, throughout the program, is essential to ensure common understanding of all the issues that are necessary for effective functioning of the program.</b></li> </ul>  |
| Chicken meat | <ul style="list-style-type: none"> <li>• <b>Networking between government and industry organisations is vital for understanding other industry experiences, learning from international models and sharing information for better delivery of EMS.</b> Linkages were enhanced between a number of government and industry bodies during this project. Effective liaison between these organisations and the individual growers was a high priority.</li> <li>• <b>The long term success of EMS projects and their contribution to recognised regional and national environmental targets depends upon strong linkages between industry and CMAs / NRM bodies.</b> Linkages between the above organisations and regional CMAs or NRM bodies were not maximised during this project and could be encouraged for further EMS support.</li> <li>• <b>Increasing linkages between processors and industry will further enhance uptake of EMS programs on-farm.</b></li> </ul> |
| Eggs         | <ul style="list-style-type: none"> <li>• <b>Importance of relationships that had previously been developed with industry (via newsletters, forums, etc) which allowed the benefits of EMS to be communicated through existing channels.</b></li> <li>• <b>Importance of environmental and planning regulators' involvement during the project (and into the future), to foster (and maintain) ownership of the system and ensure that regulatory changes are reflected in EMS.</b></li> <li>• <b>Importance of increasing linkages between government, industry and CMAs, to ensure long-term success of EMS.</b></li> </ul>   |
| Rice         | <ul style="list-style-type: none"> <li>• <b>Investment in building quality relationships is worth the time involved, as it ensures a strong foundation to deliver long term outcomes efficiently.</b></li> </ul>   |

| Project | Linkages   |
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|         | <ul style="list-style-type: none"> <li>• <b>Engaging larger organisations is challenging due to the difficulty in identifying the appropriate key personnel, therefore greater linkages with CMAs will be sought.</b></li> <li>• <b>Streamlining complex information (such as legislative requirements and policies) increases the likelihood of actions being implemented on ground.</b></li> <li>• <b>Importance of creating networks between landholders to foster enthusiasm, maintain motivation and share ideas/solutions.</b></li> </ul>  |
| VFF     | <ul style="list-style-type: none"> <li>• <b>Importance of communication.</b></li> <li>• <b>Making relevant legal information more accessible encourages increased awareness and compliance by farmers of their legal, environmental management responsibilities.</b></li> <li>• There is scope for greater involvement of local government with EMS as all councils employ environmental officers who could promote EMS and possibly integrate EMS into rating determinations of rural land.</li> </ul>  |
| Wine    | <ul style="list-style-type: none"> <li>• <b>Importance of communication.</b> The linkage between the wine industry and the NRM industry is a fundamental role of AWIS. However, both industries are fraught with their own jargon and acronyms, which can make communication and interpretation of documentation from either industry difficult. For this reason, the Winemakers' Federation sought the services of an external communications company to draft AWIS materials that would be used to communicate the underlying links between the wine industry and NRM industry. The communications company was needed to ensure that the concept of AWIS and its linkage with NRM targets, actions and outcomes was clear and sensible to readers with no prior knowledge of natural resource management arrangements in Australia.</li> <li>• AWIS derives its rigour from the linkage between the AWIS spray diary survey and Australia's National Environmental Outcomes, via individual regional NRM plans. This has enabled AWIS, as the overarching national wine industry environmental management program, to adopt a national set of outcomes and identify flexible region-specific pathways by which regional wine industries can contribute to those outcomes.</li> <li>• <b>There are efficiencies in dealing directly with wine companies, who in turn can work with their grower networks, instead of trying to establish new networks or go directly to growers.</b></li> </ul> |
| Grains  | <ul style="list-style-type: none"> <li>• <b>Where different broad acre industries are at different phases in the identification and measurement of the best or desirable practices, a joint approach between the industries can be difficult to coordinate.</b> However, taking this approach will deliver greater benefits to our stakeholders, constituent and the community.</li> <li>• There is value in being able to link with other organisations and present several items of interest, potentially related, at common industry events.</li> <li>• <b>Considerable benefit can accrue from forming and building on linkages with government agencies,</b> which have data and</li> </ul>   |

| Project  | Linkages  |
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|          | <p>information that has greatly assisted with the project and the database construction.</p> <ul style="list-style-type: none"> <li>• Making use of the Grains Council's position, as a peak body, allows presentations and information to be furnished to the appropriate government departments and ministerial staff. This assisted with having the government better understand the approach taken in this project.</li> <li>• <b>It remains crucial that industries take leading positions in designing and implementing environmental reporting that suits their needs and those of the various audiences.</b> This has been reinforced by the IPSOS research.</li> </ul>   |
| Wool     | <ul style="list-style-type: none"> <li>• <b>Creating linkages is difficult but important, so that key lessons learnt by others can be harnessed or opportunities for collaboration taken.</b></li> <li>• <b>The “EMS industry” in Australian agriculture is very political, which can be a disincentive to practitioners and service providers.</b> There would appear to be several reasons for this, including a fear of crowding out and differing philosophical views as to what system works best. There are also differences of opinion over the necessity or otherwise to have an EMS based on ISO standards.</li> </ul>   |
| Red meat | <ul style="list-style-type: none"> <li>• <b>Linking with organisations that are competing for the same client (producers) and funding sources (DAFF) is a difficult exercise.</b> Similarly, negotiating linkages between organisations which have different jurisdictions is also a difficult exercise. Generally, regional groups are not receptive to state based approaches and state based approaches are not receptive to national approaches. A lot of lip service was paid to cross jurisdictional linkages but very little was actually achieved. <b>Formal linkages written into the Pathways contracts may have helped organisations work more closely.</b></li> </ul> |
| Organics | <ul style="list-style-type: none"> <li>• <b>Linkages established with other industry sectors provide encouragement, guidance, tools for adaptation to organic industry needs, and richness of perspective.</b> These connections can be used in future work and industry development.</li> </ul>  |
| QFF      | <ul style="list-style-type: none"> <li>• <b>Development of partnerships takes time.</b></li> <li>• <b>It is important to build both operational (industry) and strategic (QFF) linkages.</b></li> </ul>   |
| TFGA     | <ul style="list-style-type: none"> <li>• FarmSAT has effectively created linkages with a broad range of projects due to: <ul style="list-style-type: none"> <li>○ Ability for FarmSAT to be used as an introductory tool and means of moving to other projects, positioning it as “pre-competitive” compared to other more sophisticated systems and tools</li> <li>○ One-on-one delivery with a facilitator, a resource not available to other projects</li> <li>○ Broad focus in terms of information able to be delivered to producers</li> </ul> </li> <li>• <b>Rather than engaging in a ‘turf war’, opportunities to</b></li> </ul>   |

| Project                 | Linkages  |
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|                         | <p><b>collaborate with other projects should be sought.</b> Ultimately, it would be a great compliment if 'FarmSAT' is re-branded by processors and exporters as their environmental assurance tool.</p>  |
| <p><b>WAFarmers</b></p> | <ul style="list-style-type: none"> <li>• <b>Benefits arising from links to grower and industry groups include the identification of individuals whose presence at a workshop or endorsement of EMS principles resulted in increased workshop participation, and the potential for these associations to generate invitations to conduct further workshops.</b></li> <li>• The program (through the workshops) helped to bring sustainable farming practices onto the agenda, linking production of food and fibre with natural resource issues farmers deal with every day. The project has also helped to build a greater understanding of how closely these activities are connected as well as how to improve the environment and production simultaneously and safely. This raised level of awareness is just as important for Landcare and NRM groups as for producers.</li> <li>• Implementation of the program was assisted and enhanced by the key EMS affiliates who made up the Steering Committee, whose experience, influence and enthusiasm for the principles and implementation of EMS and sustainability were fundamental to the success of the project.</li> <li>• <b>Due to the low profile which EMS has had in the farming community in the past, linkages are sometimes only successful by the persistence of EMS managers and facilitators.</b> A workshop presentation to young farmers at the WAFarmers Young Farmer Conference was positively received and their recognition of the value of EMSs was encouraging. This generational change was particularly notable.</li> </ul> |
| <p><b>PGA</b></p>       | <ul style="list-style-type: none"> <li>• <b>Having the project run by the pastoral industry representative body has allowed good penetration to individual pastoralists, while being able to provide a single contact point for government and community.</b> Having the EMS message presented by a respected industry organisation will increase participation in any future program.</li> <li>• <b>There is a need for greater coordination and collaboration in the delivery of NRM programs.</b></li> <li>• Early discussions with government have proven valuable in cultivating a relationship of cooperation with industry. This is an important step in gaining recognition for the role that an EMS can play in supporting pastoralists in a practical way to better manage their environments and get a benefit from documenting and 'proving' what they are doing.</li> <li>• <b>Developing contacts within other industry based EMS projects proved to be of limited value at this time.</b> Taking account of some elements from other industries' EMS projects in developing a system and promoting it to producers will benefit later stages of development of a pastoral environmental management program.</li> </ul>   |

## Adoption

| Project | Adoption   |
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| Cotton  | <ul style="list-style-type: none"> <li>• The development of a brand for Australian cotton is more likely to address the broader issue of the marketability of Australian cotton. While this will affect the overall profitability of cotton farmers, it is less likely to result in specific premiums to individual farmers on a broad scale that can be attributed to the adoption of better natural resource management practices. Therefore <b>the focus of future industry efforts should be on better identifying the production benefits.</b></li> <li>• <b>One of the fundamental challenges in developing a market for ‘sustainable’ cotton is that there is no direct value to the consumer.</b> For the consumer, when cotton is compared with food, cotton has a greater distance between the primary product - raw cotton - and the final product. This makes it more difficult for the consumer to relate to, or be interested in, the means of production of the raw material.</li> <li>• <b>BMP cotton requires a verification system such that Australian BMP cotton can be identified through the supply chain to minimise the chance of other cotton being passed off as Australian BMP cotton.</b></li> <li>• While most shippers agreed that there could be benefits if the Australian crop was subject to BMP processes and protocols and it was marketed as such, they could not identify a strong enough connection between investing in the necessary processes and protocols, and a return on that investment. As such, <b>there is unlikely to be a willingness to invest in any significant adjustments to existing arrangements, nor in an industry-focussed marketing campaign based on an industry brand.</b></li> </ul> |
| Dairy   | <ul style="list-style-type: none"> <li>• <b>Intrinsic motivators</b> (e.g. “I’m doing this because I want to and I can see the benefits to me, my family, my farm, the community and the environment”) <b>are necessary for long term adoption of EMS,</b> as opposed to extrinsic motivators (regulation).</li> <li>• <b>Peer acceptance is a better regulator of farming practices than institutional regulation.</b></li> <li>• <b>Tools need to be flexible.</b> The flexibility of DairySAT has assisted adoption. Allowing people to use DairySAT as it suits them best needs to be maintained.</li> <li>• <b>Resource (time and money) costs involved in the EMS process reduce the potential for wide scale adoption.</b></li> <li>• <b>There is a need for a broader base for EMS facilitation,</b> e.g. milk companies are well placed to leverage for increased adoption.</li> <li>• <b>It is important to develop an understanding among investors that engagement and adoption takes time.</b> This is needed to support the case for funding continuity.</li> <li>• <b>Recognition for farmer implementation of on farm NRM is currently lacking; this needs to be addressed to assist further adoption.</b></li> </ul>  |

| Project      | Adoption   |
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|              | <ul style="list-style-type: none"> <li>• <b>It should be acknowledged that farmers are at different stages along the EMS pathway, so that they can be targeted appropriately.</b></li> <li>• <b>It is very important to consider how farmers access information</b> (e.g. lack of formal education, information gathered from other farmers over the kitchen table).</li> <li>• <b>On-the-job knowledge can be built through farmer to farmer learning.</b></li> <li>• <b>There is a need for ongoing support</b>, including funding and technical support.</li> <li>• <b>Programs must have the capacity to deliver new research and development given the current rate of change and increase in uncertainty</b> (e.g. climate change).</li> <li>• <b>Training farm service providers as advocates has resulted in increased uptake.</b></li> <li>• <b>Factors influencing adoption</b> included: <ul style="list-style-type: none"> <li>○ Level of engagement with catchment and NRM agencies responsible for Catchment Management.</li> <li>○ Lifestyle and animal health advantages (reduced stress, animals and farmers from changes in practice).</li> <li>○ Establishment of new partnerships to enhance and assist on farm NRM (funding/delivery advice).</li> <li>○ Increased opportunities for learning from other farmers.</li> <li>○ Social networking.</li> <li>○ Ability to link farmers with resources/information and other farmers with NRM experience.</li> <li>○ One-on-one facilitation of DairySAT.</li> </ul> </li> </ul> |
| Horticulture | <ul style="list-style-type: none"> <li>• <b>To promote the uptake of EA, producers need to see benefit from their involvement and not feel threatened by the implications, language and costs.</b></li> <li>• <b>Consultation and industry involvement with the development and testing of guidelines can be employed to identify and try to minimise barriers to adoption.</b> In doing so, Horticulture for Tomorrow has built capacity for future implementation of environmental assurance in horticulture.</li> </ul>   |
| Pork         | <ul style="list-style-type: none"> <li>• <b>There is a need to consider producers' time constraints when developing courses and materials.</b></li> </ul>  |
| Seafood      | <ul style="list-style-type: none"> <li>• <b>Key factors for successful stakeholder engagement in EMS within the seafood industry</b> (as identified by a study undertaken on how best to engage with stakeholders and achieve recognition of Seafood EMS) include: demonstrated benefits, personal consultation/interaction, early involvement in the development/implementation of an EMS, generation of trust by facilitators, efficient and reliable Seafood Industry EMS network, applicable/easily related to own industry/individual operation, and easily accessible information sources.</li> <li>• Previous and current initiatives have shown that <b>industry</b></li> </ul>  |

| Project                   | Adoption   |
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|                           | <p><b>champions, who themselves have commenced implementing EMS, are able to convey powerful messages that can be used to encourage others to commence the EMS journey.</b> The Seafood EMS Mentoring program has been an extremely effective way of having fishers learn about EMS. Participants at one industry mentor session said their involvement in environmental management led to all important community understanding and recognition as well as technical benefits. The mentoring programme has brought large benefits from a small investment. It is clear that this project has created an impetus for EMS development and implementation. With continuity and some additional resources, the level of interest and the rate of implementation of an EMS are expected to multiply exponentially.</p>   |
| <p><b>CANEGROWERS</b></p> | <ul style="list-style-type: none"> <li>• <b>There is a need to recognise that many growers are already adopting good farm practices and are already participating in various activities.</b> Sugar industry organisations already have a wide range of support tools and support activities. Current levels of adoption must be clearly recognised, and adoption of a broader concept should integrate with the various activities.</li> <li>• Support from industry leaders was required prior to support from other industry organisations.</li> <li>• <b>The pace of adoption must be seen in the context of other grower, and broader industry, priorities.</b> Current and future capacity for adoption must consider the various other challenges that face the industry.</li> </ul>   |
| <p><b>Sugar</b></p>       | <ul style="list-style-type: none"> <li>• <b>Active endorsement and promotion of FMS by industry leaders was critical for FMS to be successfully promoted and delivered to farmers.</b> Until the industry leaders were comfortable with the structure of the FMS framework, this endorsement was lacking. Industry leaders had no 'ownership' of FMS until they became involved in tailoring the Sugar FMS Tools to very closely align with other industry programs, including the BSES-led Farm Productivity Assessment program.</li> <li>• <b>Issues that need to be addressed for growers to successfully implement FMS</b> include:             <ul style="list-style-type: none"> <li>○ Clear demonstration of benefits to growers from FMS.</li> <li>○ Defining the components (modules) that are required for an FMS within each region.</li> <li>○ Support to growers from regional service organisations.</li> <li>○ Clear reason to implement FMS in each region (proactive responses to eg. Reef Water Quality Plan, LWMP, profitability through BMP, etc).</li> <li>○ Incentives such as provided in Proserpine who provide up to \$0.2 per tonne of cane for suppliers who have undertaken courses (FMS modules) including COMPASS, OH&amp;S, LWMP, FPA, etc.</li> <li>○ Grower champions or advocates, and grower case studies</li> <li>○ Simple staged approach, with initial focus on one aspect such as profitability through BMP, followed by increasing complexity such as sustainability and OH&amp;S as people get comfortable</li> </ul> </li> </ul> |

| Project                    | Adoption   |
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|                            | <p>with the FMS process.</p> <ul style="list-style-type: none"> <li>○ Attract funding (eg., from regional NRM groups) to support implementation.</li> <li>○ Unified support for FMS by all key industry organisations within a region.</li> <li>○ Change of name from FMS to something like eg. 'Better Sugar' or 'SmartCane'.</li> </ul> <ul style="list-style-type: none"> <li>● The Independent Overview identified the following <b>issues that adversely affected FMS midway through the program:</b> <ul style="list-style-type: none"> <li>○ Widespread confusion amongst sugar industry people.</li> <li>○ The tools needed further improvement and refining.</li> <li>○ The focus should be on regions rather than a generic system.</li> <li>○ Relationships between key industry organisations were described as 'dysfunctional'.</li> <li>○ The milling sector had not been sufficiently involved.</li> <li>○ Communication on FMS was inadequate or ineffective.</li> <li>○ Milestone criteria in projects administered by SRDC were not sufficiently detailed.</li> </ul> </li> </ul>  |
| <p><b>Chicken meat</b></p> | <ul style="list-style-type: none"> <li>● <b>To achieve widespread adoption of EMS in the meat chicken industry, the current support structures and activities need to be maintained and a clear message of implementation benefits to farmers needs to occur.</b> The momentum achieved so far needs to be continued and expanded to a point where EMS is integrated into standard best practice farm management as a matter of natural progression.</li> <li>● <b>The use of second party auditors can have downfalls, as it can be difficult for the auditor to remain impartial and not provide advice to the grower. It is necessary to maintain a flexible program that can adapt when issues arise.</b> This project showed its ability to modify outcomes by using these people who found it hard to be an auditor to use their expertise to provide mentoring support for growers. This mentoring will provide one-on-one help to growers and encourage adoption of EMS management practices via peer assistance.</li> <li>● <b>Adoption of EMS principles, in terms of catchment management, will be enhanced with linkages between CMAs/NRM bodies and the industry.</b> Where CMAs are invited to the process, an effective relationship will be created to allow for farm scale EMS to be integrated into catchment scale management. It is important for farmers to understand where they fit in their catchment and how their industry can impact catchment issues. This understanding will lead to higher adoption of EMS to complement the regional catchment objectives.</li> <li>● <b>Effective and coordinated communication is essential to the successful adoption of EMS.</b> Continued community liaison and EMS extension will aid in the environmental and economic benefits being seen by growers and the broader community. Good science gained from external sources, to provide a firm foundation for the EMS process, is also imperative and continuing future research into EMS principles is necessary.</li> </ul> |

| Project | Adoption  |
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|         | <ul style="list-style-type: none"> <li>• On-farm auditing, which brought the broad EMS concept to the farm scale, identified areas of environmental problems affecting the growers immediately. <b>Using growers as second party auditors can give the EMS auditing process less of a regulatory feel and more of a peer review context.</b> This tiered training approach is beneficial for creating an industry specific auditing system that is useful and constructive for the grower. By making the process valuable in terms of sustainability and profitability, grower adoption will be higher and EMS outcomes achieved.</li> <li>• <b>External incentives are still needed to facilitate widespread EMS adoption.</b></li> <li>• <b>Identifying producer concerns that arose during this project can be used in future projects to enhance smooth transfer of EMS information.</b></li> </ul>   |
| Eggs    | <ul style="list-style-type: none"> <li>• <b>Integrating EMS into ECA avoided duplication and has driven uptake by producers.</b> This has been particularly important given the absence of strong market drivers for EMS.</li> <li>• <b>Regular promotion of EMS via workshops, industry newsletters and industry forums has been a key to adoption.</b> This process has been streamlined via the use of existing communication linkages with industry.</li> <li>• <b>Industry champions have aided adoption by communicating learnings to producers and acting as a real-life example of on-farm EMS.</b> Continued support needs to be provided to these champions to maintain momentum and boost uptake further.</li> <li>• <b>Implementation of EMS via a risk-based framework has assisted with adoption</b></li> <li>• <b>Utilising existing networks assists with communication and can increase the rate of EMS uptake.</b> The AECL has a strong network of producers and retailers already established, and disseminating information is quite easy- this has aided the positive and rapid uptake of the program.</li> <li>• <b>Strong leadership by AECL has ensured that industry and regulators have developed an agreed EMS pathway together, and has also resulted in adoption exceeding original expectations.</b> This comes despite the time available to deliver EMS on the ground being constrained by unforeseen events such as a change in Project Manager and underestimation of contractual timeframes.</li> </ul> |
| Rice    | <ul style="list-style-type: none"> <li>• <b>Creating a positive environment and peer support mechanisms are important for boosting implementation on ground</b></li> <li>• Managing the momentum of the ECP groups is important to ensure they value the process, continue ownership and direction of their group, and make meaningful change. <b>Self assessment tools can create a ‘tick the box’ approach to the program.</b></li> <li>• Sub groups within cluster groups appear when some members embrace the program more quickly than others; <b>challenges need to be created for these more innovative farmers</b></li> <li>• <b>Techniques to increase adoption</b> include collation of benefits as</li> </ul>  |

| Project | Adoption  |
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|         | <p>they unfold, identification of relevant information for each target audience to minimise and streamline the information, word of mouth, regional coordinators utilising communication opportunities in forums such as field days/irrigation newsletters, a communication plan that has consistent key messages and utilises respected communication networks, identification of specific financial gains, managing momentum and expectations to ensure progress and long term outcomes, taking feedback on board and making changes where appropriate, and addressing issues (perceptions, barriers, change management process and hurdles to engagement).</p> <ul style="list-style-type: none"> <li>• <b>Insist that the program remain voluntary but that demonstrated benefits (environmental and business) are championed by progressive individuals and underpinned by tangible incentives</b></li> <li>• There are a number of institutional policies that affect landholders engaged in the program. These include legislative bodies unsure of their own legislation creating doubt in landholders minds, changing goals posts, 'big stick approach'; credible environmental performance is not respected at a higher level; and on going support for EMS programs needs to be a collaborative approach.</li> </ul> |
| VFF     | <ul style="list-style-type: none"> <li>• <b>Farmers learning from other farmers, is recognised as being very effective.</b> To this end, EMS Professional Development training of industry leaders and influential farmers is seen to have considerable merit.</li> <li>• The team of 10 EMS Pathways Officers and the statewide Pathways Manager have been the key to the achievements of the project. The availability of competent, enthusiastic, EMS extension staff in each of the 10 regions across Victoria has been of major importance. There has been considerable merit having them recognised as coordinators and the point-of-contact for EMS in the regions. They have been able to impart a consistent approach to EMS training and thus helping to overcome a past problem of a confusing array of a variety of approaches to EMS.</li> </ul>   |
| Wine    | <ul style="list-style-type: none"> <li>• One of the first barriers to adoption AWIS encountered related to terminology. Many take the term 'EMS' to mean ISO 14001 accredited EMS. Rather than repeatedly having to explain the Federation's interpretation of EMS, which doesn't have to include ISO accreditation, the Winemakers' Federation adopted the term 'stewardship'.</li> <li>• <b>By modifying current accepted practices, AWIS was able to be rolled out with less disruption than could have arisen from the introduction of a new tool.</b></li> <li>• Rather than establishing regional AWIS committees, comprising wine industry and NRM body/CMA representatives, these were replaced with an email communication network of interested parties. In those regions where there was insufficient interest to warrant the establishment of an AWIS committee, the region was instead engaged through presentations and attendance at regional and state association meetings. Regional Coordinators also made separate approaches to NRM bodies and CMAs to obtain their input. In hindsight, this should have been the method from the outset, but would have been a considerable drain on Coordinator time as much</li> </ul>  |

| Project | Adoption  |
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|         | <p>of their part-time positions would have been spent travelling. This could have been avoided to some extent by appointing 3 full time positions and dropping any pretensions of them being 'regional coordinators'.</p> <ul style="list-style-type: none"> <li>• Although the AWIS programme was designed to avoid the need for industry regulation, this cannot be guaranteed into the future, and a minority group within the industry feel that this is justification enough to not adopt the programme.</li> <li>• <b>Industry resource allocations to environmental management activities that are beyond sound management practices have assumed a lower priority than enterprise survival issues in persisting adverse climatic and grape oversupply conditions.</b> However, oversupply conditions have also provided incentive to growers to comply with supply contract conditions, which include the return of spray diaries. Where spray diaries contain the AWIS survey, this has potentially led to increased response rates.</li> <li>• <b>Negative experiences with other NHT funded programmes can affect uptake of EMS.</b></li> <li>• The Australian wine industry has a strong focus on regional identity for purposes of marketing, classification of wine styles, and through a regional branding focus. <b>Participation in a national programme can detract from the points of difference that many regions like to capitalise on.</b> The ability to add region-specific questions to the AWIS survey enables it to be customised to better suit regional needs. This goes some way to overcoming regional hesitation about participating in a national programme.</li> <li>• <b>Workshop attendance is likely to be greatest when the workshop is conducted in association with another regional meeting, or as part of a broader workshop programme.</b> Interest in the workshops was variable, with the greatest success obtained in regions where the workshop was conducted in association with another regional meeting, or as part of a broader workshop programme.</li> </ul> |
| Grains  | <ul style="list-style-type: none"> <li>• <b>There is a need to make adoption of EMS as painless as possible, since no financial or market incentives exist</b></li> <li>• The power of understanding the linkage between the practices used on-farm and the environmental benefits delivered by these (hence the emphasis on scientific validation of this approach).</li> <li>• <b>The direct value of EMS, especially in its conventional (ISO-based) form, would appear limited.</b> However, by linking environmental management with farming practices, and promoting the benefits of such practices for at least two of the three bottom line values (economic and environmental), such a system can become attractive enough for farmers to consider using such an approach.</li> <li>• It appears that <b>only when any form of EMS has greater and broader value than environmental reporting, can more than cursory uptake occur</b></li> </ul>   |
| Wool    | <ul style="list-style-type: none"> <li>• <b>There are no strong market drivers for a commodity such as raw wool to seek EMS accreditation.</b> As a consequence, woolgrowers may be very reluctant to go down the EMS pathway -</li> </ul>  |

| Project  | Adoption   |
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|          | <p>thus adoption is likely to be low unless other incentives or benefits are available. However, <b>there will be some woolgrowers who will actively seek out such schemes either due to perceived niche marketing opportunities or because of their own farming philosophy.</b></p> <ul style="list-style-type: none"> <li>• Other than some regulatory areas (such as the retention of native vegetation), there are few 'local' drivers for woolgrowers to adopt EMS.</li> <li>• While many broadacre producers are involved in the production of at least two product categories (e.g. wool, meat or grains) the culture of these sectors and their representative bodies can differ. This makes the development of a single environmental stewardship approach for broadacre farmers slightly more difficult than would otherwise be the case. However, these cultural issues can be addressed.</li> </ul>  |
| Organics | <ul style="list-style-type: none"> <li>• <b>Adoption of EMS processes should be as farmer friendly as possible- simple, effective and time efficient</b></li> <li>• <b>Importance of community engagement in the change process, particularly that of farmers learning together and being central to the dialogue</b></li> <li>• Difficulty of dealing with a national industry when the peak industry body and its structures are relatively new and under resourced. This situation makes communication difficult, therefore it is important to have longer time frames, and clear and well targeted communication.</li> <li>• <b>Linking into regional networks and organisations may be helpful, providing these bodies recognise the work and experience of organic farmers. Building on these relationships can provide opportunities for organic farmers to access mainstream programs, funding and incentives.</b></li> <li>• Adoption will be made easier if organic farmers' contribution to environmental sustainability is acknowledged and embraced by agriculture industries and governments. <b>The industry should publish case studies of organic systems to demonstrate environmental claims as an urgent priority.</b></li> <li>• Organic farmers (as an industry) have had limited support from government so there is a tendency to regard government initiatives with suspicion, particularly when the benefits of organic agriculture continue to be ignored. There is a need to keep this in mind when working with the organic sector.</li> </ul> |
| QFF      | <ul style="list-style-type: none"> <li>• <b>Sound industry process / support achieves results.</b></li> <li>• <b>Programs should be tailored to meet producers' needs.</b></li> <li>• <b>Incentives move producers beyond barriers to change.</b></li> <li>• <b>Strategic coordination can help with efficiency gains.</b></li> </ul>  |
| TFGA     | <ul style="list-style-type: none"> <li>• Experience with other on farm management systems has shown that, <b>while a dedicated few may be prepared to tackle detailed systems, the majority are not likely to persevere.</b> By providing an easy first step, the project has shown that producer fears that environmental management is about 'locking up land' and 'losing</li> </ul>  |

| Project   | Adoption  |
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|           | <p>crops to wallabies' can be overcome. In line with this approach, FarmSAT did not establish strict selection criteria for producer involvement. This approach recognises the impact all landowners, no matter how large or small, can have on the environment.</p> <ul style="list-style-type: none"> <li>• The use of producers as facilitators- in many instances the facilitators 'got through the door' because they were a producer and known to the participant. This highlights <b>the benefits of using credible, trusted people as facilitators</b>.</li> <li>• There is a role for high profile producers and producer organisations, such as the TFGA, in promoting uptake of EMS and tools such as FarmSAT. The connection to these people and groups is another means of 'opening the door'. <b>Producers tend to access information from other producers, Field Officers, field days, agricultural consultants, and rural merchandise stores</b>, rather than via the Internet, TIAR / DPIW extension officers, newspapers, or formal training courses. <b>Therefore, to enhance the roll out of tools such as FarmSAT these people should be recruited as facilitators or advocates</b>. There is a need to provide training to these people in the FarmSAT delivery method and to continue to build relationships with secondary industry, such as processors and packers, to encourage producer involvement and extend the FarmSAT message.</li> <li>• <b>The ongoing provision of facilitation may become a limiting factor to adoption</b> and has pioneered the development of an electronic version of FarmSAT. Strategies and delivery methods need to be developed to assist with working through a self-assessment process as a group.</li> <li>• Follow up with producers who have worked through FarmSAT indicates many have taken additional steps. Producers have also indicated that <b>follow up can encourage action, but nagging can be counter productive</b>.</li> <li>• <b>Mass adoption requires a wide range of tools and multiple access and delivery points</b>. However, <b>the more time that is invested in the development of a particular system or tool, the more likely it is that the system owner will fight to stake their claim on their product and seek to differentiate it from others</b>.</li> </ul> |
| WAFarmers | <ul style="list-style-type: none"> <li>• The industry has difficulty in attracting high numbers to workshops unless the subject matter is of immediate and obvious relevance and interest to the farmer. <b>It may be possible to increase attendance by holding workshops jointly with other stakeholders such as NRM, landcare or production groups</b>.</li> <li>• <b>Taking the workshop to the individual through Farm and Field days can increase the level of awareness for a wider group of people in a given area and/or industry</b>.</li> <li>• <b>A major difficulty for participants is the ever-proliferating number of EMSs on offer</b>. Industry-based solutions such as EMSs are an important method to achieve change, however some rationalisation of the many systems on offer needs to be encouraged. Any system offered should focus on the desired outcomes rather than compliance-driven standards. Participants are much more likely to adopt change if they feel free to choose</li> </ul>   |

| Project    | Adoption  |
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|            | <p>methods which suit their particular circumstances. The requirement to produce evidence of compliance needs to be balanced against this. <b>There is also confusion amongst landholders regarding the many types of EMSs available, and the legal requirements which can or may apply to them.</b> An industry central contact point for growers could advise on EMS, OH&amp;S questions and the other legal requirements imposed across departments and provide help to coordinate government approvals required by the landholder.</p> <ul style="list-style-type: none"> <li>• Discussions with farmers indicate that while many were already implementing aspects of EMS on-farm, there was no single cross-industry code of practice easily accessible by which they might judge their changing farm practices. <b>We need to develop a more rigorous, science-based approach to defining ‘current recommended’, ‘best’ or ‘target practices’.</b> The term ‘best practice’ can mean different things in different areas, and <b>marketplace credibility is important if the systems are to be useful in maintaining market access or obtaining market advantage.</b></li> <li>• Taking action on the issues identified is proving difficult, particularly when it involves labour and costs. <b>Support is required to ensure the monitoring program is delivering against the EMS.</b> Given that market drivers are currently largely absent, extension and incentives will be needed to facilitate diffusion and adoption. Self-assessment without an independent external advisor contains inherent challenges and extension assistance would be helpful to fully explore the risks to individual businesses.</li> <li>• Not all farmers are accessible through production, grower groups or other industry bodies which are used to advertise workshops, therefore these people were targeted through the use of an EMS exhibition stand publicising the message through two large banners together with promotional material, the SAT and Priority Tools, and a DVD.</li> <li>• <b>The low taxable income threshold to be eligible for the EMS incentive offered by the Australian Government makes the incentive unavailable or unattractive to most broadacre farmers in Western Australia due to their large scale and capitalisation.</b></li> <li>• <b>The possibility to extract a marketing advantage for food and fibre exists if environmental certification is in place.</b> In the absence of market drivers, a low level environmental awareness-raising process through self-assessment is likely to be more realistic for broadacre farmers than more complex systems such as ISO 14001.</li> </ul> |
| <p>PGA</p> | <ul style="list-style-type: none"> <li>• <b>A dedicated position is required to provide intensive one-on-one support in the development of the ‘plan-do-check-review’ process for each business.</b> In addition, technical information and extension services are required to ensure the management options to develop management actions for use within any such plans are available.</li> <li>• <b>Before adoption of higher levels of EMS occurs, producers require ready access to the information to support implementation.</b></li> </ul>   |

| Project | Adoption   |
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|         | <ul style="list-style-type: none"><li>• Financial constraints, time, people resources to become involved or carry out work, and insecure tenure have been identified consistently as constraints to involvement in landcare and associated programs. It appears that <b>until these areas are addressed, we will continue to face challenges in engaging pastoralists in NRM and even more difficulty in implementing EMS.</b></li><li>• <b>Linking workshops with other industry meetings was critical to the success of getting people to the workshops, as it increased the effective use of pastoralists' time and the cost of travelling to attend meetings;</b> both issues which have been highlighted as a problem in getting groups of pastoralists together for meetings in many previous studies.</li></ul> |

## Project management

| Project | Project management   |
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| Cotton  | <ul style="list-style-type: none"> <li>• Any future project cutting across multiple industry organisations could benefit from a steering committee that could act as a point of initial discussion and debate so that direction-setting for the work is fully informed through the involvement and input of the multiple sectors with an interest.</li> <li>• Staff turnover and the decision to employ an intermediary to oversee the day-to-day management of the project weakened what was once a close working relationship with DAFF.</li> </ul>  |
| Dairy   | <ul style="list-style-type: none"> <li>• The management of a complex program, regionally driven, but coordinated nationally, has been more demanding than anticipated. The original concept, of one national program, would have been easier to manage but it would not have generated the excellent outcomes achieved by the regional model. <b>Without the appointment of regional NRM coordinators through the NLP Sustainable Industries Initiative, the project would have struggled.</b></li> <li>• Gaining support and acceptance of a centrally run program from relatively independent RDPs was an early challenge. The project approach was changed from one perceived as centrally ‘imposed’ to one utilising existing regional strengths and programs. The eventual result was strong support from RDPs apart from Murray Dairy.</li> <li>• Reporting requirements have been relatively demanding and repetitive. <b>Quarterly reporting may be necessary in the first part of the project, however once patterns are established it may be more meaningful to report on a four or six monthly basis.</b> For several reasons, particularly staffing changes, quarterly milestones established for the Dft - On the Ground project were compiled under time constraints. Some could be consolidated if repeating the process in order to reduce repetition.</li> <li>• <b>The relatively short term nature of the program has compromised results due to time constraints.</b> This has applied particularly where delivery partnerships with other organisations and/or programs have been developed.</li> <li>• <b>The change from DAFF management to Hassall and Associates management introduced a third party into the process meaning that, in some instances, Hassall and Associates were acting as a “go between” with possible delays in decisions e.g. contract variations.</b> However, <b>Hassall and Associates introduced a more structured Monitoring &amp; Evaluation process and have been able to be very focussed on supporting the project.</b></li> <li>• <b>Internal staff changes exacerbate time constraints.</b> Three different people, within Dairy Australia, have had responsibility or part responsibility for managing the project. This has required re-learning on two occasions, increasing the time needed that would not have been necessary with continuity. The above have been more significant than normal (but no more frequent than normal) as a result of the relatively short term nature of the program.</li> </ul> |

| Project             | Project management   |
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|                     | <ul style="list-style-type: none"> <li>• <b>External factors</b> (such as drought) <b>have impacted on project timeframes and achievements.</b> The final evaluation of 'Dairying for Tomorrow: on the Ground' has been delayed as a result of drought and a later than expected autumn break. Farmers are still in survival mode and the program would be better served by evaluating it when this has changed. The drought has also had a significant impact on the implementation of action plans which has postponed a better result than actually achieved.</li> </ul>  |
| <b>Horticulture</b> | <ul style="list-style-type: none"> <li>• It would have been more beneficial to have had some consistency with the roles and responsibilities of the contract management of the program from the beginning.</li> </ul>  |
| <b>Seafood</b>      | <ul style="list-style-type: none"> <li>• <b>The focus on enabling industry to achieve commercial benefits while achieving the governments' NRM objectives has provided a clear public benefit through increased and sustainable economic returns to the community.</b></li> </ul>  |
| <b>CANEGROWERS</b>  | <ul style="list-style-type: none"> <li>• <b>There is a need for a single overarching Project Manager.</b> The establishment of the Sugar Industry Organisations CEOs FMS Steering Committee suggests that challenges of project management were experienced by the Sugarcane FMS Project. This was likely due to both SRDC and CANEGROWERS having contracts with DAFF. The February 2006 Review initiated by the CEOs Committee also supports the need for an overarching single Project Manager.</li> </ul>   |
| <b>Sugar</b>        | <ul style="list-style-type: none"> <li>• <b>Having separate contracts between CANEGROWERS and DAFF, and SRDC and DAFF, made project management more difficult.</b></li> </ul>  |
| <b>Chicken meat</b> | <ul style="list-style-type: none"> <li>• <b>Time, funding, communication issues and industry politics impact on successful project management.</b> Managing a national program also presented some logistical issues. <b>Political influence in each state can strongly impinge on grower sentiment and willingness to participate in industry events.</b> The last few years have seen major restructures in some states, which has impacted on the take up of programs such as EMS. These industry issues have had an effect on project management, and the project needed to adapt to these problems.</li> <li>• <b>Importance of project management flexibility, to accommodate unexpected delays</b> arising from factors such as poor weather. Weather has played a part in reducing the available window for training and mentoring.</li> </ul> |
| <b>Eggs</b>         | <ul style="list-style-type: none"> <li>• <b>AECL is well positioned to implement EMS, as it is the sole provider of egg marketing and R&amp;D services. AECL remains committed to driving EMS adoption via ECA.</b></li> </ul>   |
| <b>Rice</b>         | <ul style="list-style-type: none"> <li>• <b>Fewer milestones and annual financial reporting would make management of the project less arduous.</b></li> <li>• <b>Project management needs to be flexible in order to adapt to seasonal conditions that can make milestone achievement difficult.</b></li> <li>• <b>The time it takes to effectively change must be recognised and integrated into future projects.</b> There needs to be a greater understanding, from all levels, as to what can realistically be</li> </ul>  |

| Project  | Project management   |
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|          | achieved in relatively short timeframes.   |
| VFF      | <ul style="list-style-type: none"> <li>• <b>The governance arrangement of having a Statewide EMS Committee and an EMS Technical Committee has worked well.</b></li> <li>• <b>Throughout the project, the management and reporting via Hassalls to DAFF has worked well.</b></li> </ul>   |
| Wine     | <ul style="list-style-type: none"> <li>• If the regional focus was dropped and three full-time coordinator positions had instead been appointed to service existing committees and NRM bodies/CMAs, this would likely have been a more efficient method of engagement.</li> </ul>  |
| Grains   | <ul style="list-style-type: none"> <li>• N/A</li> </ul>  |
| Wool     | <ul style="list-style-type: none"> <li>• <b>There are high transaction costs when dealing with Government Departments due to the regularity of reporting requirements and the fact that projects can change, which in some cases may require contract variations.</b> This is an area where all agencies (AWI included) can improve.</li> <li>• <b>The differing cultures and needs of representative industry bodies and RDCs across agricultural commodities need to be kept in mind by project management,</b> as well as the desire of individual organisations to want to use their delivery mechanisms for the extension of new information.</li> </ul>  |
| Red meat | <ul style="list-style-type: none"> <li>• <b>Collaborative projects take significant time and effort.</b></li> <li>• <b>Projects will evolve over time.</b></li> <li>• <b>There is a trade off between timeliness and output quality.</b></li> </ul>  |
| Organics | <ul style="list-style-type: none"> <li>• <b>Meeting time deadlines was one of the greatest challenges for project management.</b> The delayed start of the project, and dealing with a national sector, slowed progress.</li> </ul>  |
| QFF      | <ul style="list-style-type: none"> <li>• <b>Project risk management for climatic events cannot be underestimated.</b></li> <li>• <b>Time and resource pressures on key staff cannot be underestimated.</b></li> <li>• <b>The state approach to FMS project management is useful, as it allows for information sharing and a sound environment for the exchange of ideas and operational guidance.</b> The QFF FMS Taskforce provided a diverse group of production systems, the exposure to specific issues confronting each sector and the strategies taken to mitigate or negate the impacts. This provided a good learning environment for participating industries and has assisted in the forward planning of programs based on identified issues.</li> </ul> |
| TFGA     | <ul style="list-style-type: none"> <li>• <b>Personnel changes, at all levels of the FarmSAT project, have resulted in some lost momentum and challenges for consistency of delivery.</b> One of the contributing factors to the changes to the facilitator team has been the part time and short term nature of the project. While employing part time facilitators has been a strength for the project, in that it has allowed producers to be employed as facilitators, it can also be seen as a weakness. As the drought has taken hold, the pressures for reliable off farm income have increased. Being unable to assure ongoing employment has</li> </ul>  |

| Project   | Project management   |
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|           | <p>weakened facilitator commitment to FarmSAT.</p> <ul style="list-style-type: none"> <li>• <b>The level of reporting</b>, particularly the level of repetition within the quarterly reports, <b>has been a source of additional work</b>. The M&amp;E Framework was established after projects had been contracted and milestones and objectives established. As a consequence, in many instances the same information was required to address a project milestone as was required for the M&amp;E framework.</li> <li>• There were a number of unstated requirements associated with the project. These included the need for implementation, risk management, communication and M&amp;E plans. While not disputing the benefits of planning, these items were unbudgeted and not included in the development of the initial project proposal. <b>Clearly defining the requirements for these plans and reporting requirements would better equip project proponents with information needed for budgeting and resource allocation.</b></li> </ul> |
| WAFarmers | <ul style="list-style-type: none"> <li>• There are two aspects of project management which have enabled this project to achieve its aims. <b>The support and coordination from Hassall &amp; Associates was valuable and effective, while risk management and mitigation planning allowed the project to deal with significant negative impacts</b>. The process was further enhanced by the involvement of Jan Paul van Moort, who assisted in developing an Action Plan in collaboration with members of the Steering Committee when project monitoring indicated that the workshop delivery program may not achieve all of its targets.</li> </ul>  |
| PGA       | <ul style="list-style-type: none"> <li>• <b>The guidance and feedback provided by Hassalls proved useful in the development of project plans</b>. These plans provided a solid foundation from which the project could ensure targets and obligations would be met.</li> </ul>   |

## Other

| Project | Other   |
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| Cotton  | <ul style="list-style-type: none"> <li>• <b>Organic cotton is the favoured eco-label as ‘organic’ is a well-established and well-understood brand that does not require any detailed communication campaign to explain to consumers what the brand means.</b> Any alternative to organic would require additional marketing to explain to consumers what the brand actually meant. Brand owners would likely be reluctant to expend time and energy on a campaign to try and explain the benefits of ‘BMP’ cotton, especially as environmental issues are, for the majority of consumers, at best a secondary consideration when making a purchasing decision.</li> <li>• <b>Retailers do not want to become environmental experts and therefore will rely upon NGOs to determine the appropriate level of environmental assurance for a given issue.</b> Marketers, whether informed or misinformed by NGO’s, are in effect the gatekeepers for the information that influences a significant majority of consumers as to the sustainability profile of cotton farming.</li> <li>• <b>There are two main reasons why global brands in particular are interested in sustainable cotton: supply chain security, and managing reputation risks and protecting the value of their brand.</b> The Australian industry, as the only national cotton industry to have defined best management practices for sustainable cotton production, is well placed to meet the requirements of, and therefore be able to supply, any demand for this style of cotton when it eventuates.</li> <li>• <b>A challenge is whether and how to combine the two means of differentiation: environment and quality.</b> As both are process-based product characteristics, they will require systems to ensure that the piece of cotton being traded was actually produced as claimed. The challenge is to do this in a way that does not add cost, but still prevents any of the supply chain participants from substituting other products to take advantage of any demand.</li> <li>• <b>Any branding campaign should be based on a ‘master brand’ focussing on Australian cotton, with any ‘green’ labelling a subset of the master brand.</b> This approach is recommended as the balance between recognising that the Australian cotton is the ‘greenest’ available, but not promoting it as so green as to risk a backlash from critics of cotton. The branding strategy should focus on ‘business to business’ (B2B) relationships rather than business to consumer due to the additional resources required for a consumer marketing campaign, and the nature of the supply chain and the strength (or otherwise) of the influence wielded by the various stages. A B2B approach is a long-term strategy, and can be expanded to a B2C approach overtime, especially as the ability to claim the ‘green’ ground improves.</li> <li>• Ultimately, it is suggested that <b>the potential offered by a brand based on superior fibre qualities that can offer a direct and specific value to the direct customer of Australian cotton (the spinner), overwhelms the current potential offered by an environmental brand.</b> Fortunately, a niche environmental market is</li> </ul> |

| Project          | Other  |
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|                  | <p>likely to match closely the market for high-quality cotton clothing, the market that would be targeted by spinners using Australian cotton with superior characteristics. The issue then is whether an environmental or BMP condition is added to any brand developed for this superior quality cotton. This is a decision for the effective owners of the varieties with these characteristics.</p> <ul style="list-style-type: none"> <li>• <b>Opportunities to brand Australian cotton do exist.</b> The challenge however is to be realistic about what such a brand may deliver- further consolidation of Australia’s position as a reliable supplier of high-quality, sustainably produced cotton. The alternative is to surrender that position to our competition.</li> </ul> |
| <b>Sugar</b>     | <ul style="list-style-type: none"> <li>• The coordination of FMS as a national program is likely to suffer from competing interests in different regions well into the future.</li> </ul>  |
| <b>Grains</b>    | <ul style="list-style-type: none"> <li>• There is an over-reliance on the priorities of other organisations aligning with an organisation’s own priorities.</li> </ul>   |
| <b>Wool</b>      | <ul style="list-style-type: none"> <li>• <b>There is a perception held by wool manufacturers, retailers and the community that the broadacre industry’s current environmental credentials are unclear.</b> This provides both an opportunity and a threat to the industry.</li> <li>• <b>The wool industry could benefit from taking a more proactive environmental stewardship approach as part of its overall risk management strategy.</b> The risks to be managed include access to markets and avoidance of further regulatory constraints.</li> </ul>  |
| <b>WAFarmers</b> | <ul style="list-style-type: none"> <li>• <b>A well implemented EMS offers potential public benefits through provision of a framework for managing incentive programs</b> including conservation zones and a land tax exemption for land held under conservation covenants.</li> </ul>  |