

On farm

Environmental Management Systems

CATTLE INDUSTRY PILOT

Project number NAP3.329

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Natural Resources

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- NSW Agriculture and the Grains Research and Development Corporation,
- The project steering committee led by Ken Lamb.

TABLE OF CONTENTS


1	SUMMARY	5
2	INTRODUCTION	7
3	PROJECT GOAL	7
3.1	PROGRESS AGAINST THE PROJECT GOAL	7
4	PROJECT OBJECTIVE NUMBER 1	8
4.1	THE GROUPS	8
4.2	ISO 14001 STANDARD.....	8
4.3	AUDITORS.....	9
4.4	CLUSTER APPROACH	9
4.5	GIPPSBEEF	9
4.6	WESTERN DOWNS.....	9
4.7	Y-NOT	10
4.8	NAPCO	10
4.9	SOUND LAND MANAGEMENT PRINCIPLES.....	10
5	PROJECT OBJECTIVE NUMBER 2	11
5.1	UNDERSTANDING	11
5.2	IMPLEMENTATION.....	11
5.3	MONITORING.....	11
5.4	GROUP MOTIVATION	12
5.5	TRAINING	12
5.6	LEVELS OF EMS	12
6	PROJECT OBJECTIVE NUMBER 3	13
6.1	BUSINESS	13
6.2	ENVIRONMENT	15
6.3	SOCIAL.....	15

7	PROJECT OBJECTIVE NUMBER 4	16
7.1	BENEFITS	16
7.2	AN INDUSTRY EMS	17
8	PROJECT OBJECTIVE NUMBER 5	17
8.1	CODE OF PRACTICE	17
8.2	FOCUS FARMS	18
9	INDUSTRY MATTERS	18
9.1	AFFA DISCUSSION PAPER	18
9.2	AUSTRALIAN LANDCARE MANAGEMENT SYSTEM (ALMS)	18
9.3	CATTLECARE	19
9.4	STATE GOVERNMENTS	19
9.5	MLA REVIEW OF QUALITY ASSURANCE	19
9.6	AUSTRALIAN COUNTRY CHOICE (ACC)	19
9.7	TROPICAL SAVANNAS CRC	20
10	PROJECT BUDGET	20
10.1	FORECAST TO BUDGET	20
10.2	FUTURE PROJECT ACTIVITIES	22
11	DISCUSSION	23

1 Summary

- 1) EMS should be offered to producers as an environmental management service tool for the continuous improvement of their natural environment.
- 2) Obstacles to the uptake of EMS by producers are the financial burden and the time cost to implement and maintain the system. Also significant is the need to change the ethos of producers towards environmental stewardship and a systems approach to management.
- 3) Provided there is sufficient incentive to cover the producers' costs in time and auditing costs, a voluntary EMS using the principles of the ISO 14001 standard is achievable by the majority of the industry. Certification to the ISO 14001 standard would be too demanding for most producers.
- 4) Currently due the lack of incentives, the financial cost of certification to ISO 14001 and the subsequent cost of surveillance audits will limit the number of producers attaining certification.
- 5) The preferred way forward is to construct a four-tiered approach towards improving the environment, beginning with an environmental self- assessment, followed by an environmental check-list, followed by an industry EMS and finally an EMS that is certified to the ISO 14001 standard.
- 6) The first tier being an environmental self-assessment would constitute the initial environmental review component of an EMS.
- 7) The second tier would be an environmental check-list, which could be audited by a Cattlecare auditor. In line with the principles of ISO 14001, the minimum environmental standard is to meet legislation and industry codes of practice.
- 8) The third tier would be an industry EMS that continues to adopt the principles of the ISO 14001 standard and is audited along-side Cattlecare by a suitably qualified industry auditor. The elements of Cattlecare could be included in the EMS.
- 9) The fourth and final tier would be an EMS that is certified to the ISO 14001 standard and is audited by a JAS-ANZ accredited auditor.

Environmental Management System Beef Pilot

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- 10) All tiers would be supported by training in the basic principles of environmental stewardship, EMS and the ISO 14001 standard. This training should involve paid producer champions who will assist in translating the components of EMS into a consistent, user-friendly language.

 - 11) The higher up the tier scale towards the ISO 14001 certified EMS, the more risk analysis and target setting is done by the actual land manager and less by the industry administrator.

 - 12) A range of simple tangible incentives that incorporate financial, land and water resource access, and training should be promoted. External auditing will provide the integrity to allow preferential access to these incentives.

 - 13) The red meat industry should lead the way in working closely with all stakeholders to see that there is not a proliferation of approaches to environmental improvement programs, which most likely would give conflicting and confusing messages to producers, consumers and the wider community.

 - 14) There is scope for MLA to form several monitor farms from the pilot groups to give longer-term information on the costs and benefits of EMS and promote the grazing industry's environmental stewardship to the wider community. This may be best achieved by forming a partnership(s) with non-industry stakeholders.

 - 15) An industry-approved and developed approach to environmental improvement will offer producers a more significant role as self-regulators.

 - 16) Improved environmental care of the land through EMS must be accompanied by the education of the consumer and the general community if the full social and economic flow-on benefits are to be realized.

2 Introduction

Approximately two years ago, Meat and Livestock Australia (MLA) called for expressions of interest from interested beef producer groups to pilot the application of environmental management systems (EMS) for the grazing industry. Due to its international recognition, the standard aimed for in the pilot was ISO 14001.

During this period, the Commonwealth and State governments have been promoting EMS in agriculture, hence there is growing interest in what EMS can offer the red meat industry. This report is a final project report although it is not likely that all the pilot groups will complete the certification process until December 2002.

The conclusions and recommendations made in this report have been discussed in full with the pilot group producers. It is their hands-on experience with EMS developed over the last two years that is of value and reflected in this report.

The major outcome from this project is a framework to environmental stewardship that has been developed by producers for producers.

3 Project Goal

To assist producers to apply to their beef enterprises an accredited Environmental Management System (EMS) based on the principles of sound land management practice.

3.1 Progress against the project goal

Given the development of EMS for agriculture to the ISO 14001 standard is a relatively new concept in Australia, the coordinator was able to provide limited guidance to the producers, apart from the broad principles. Each group has depended on the ISO 14001 standard, their own abilities and the grains generic EMS model to develop their own group's generic EMS model.

The wide geographic spread of the pilot groups from Victoria to Queensland has also made direct contact with each group time consuming and expensive in terms of travel. The Victorian group has fortunately received support from Ken Lamb who is on the project steering committee and resides in the Gippsland region.

The primary roles of the project coordinator have been to record the development of each groups EMS and where ever possible provide guidance on what the ISO 14001 standard requires.

The ISO 14001 standard, the groups' own abilities and the grains generic model have been essential ingredients for the success of the pilot groups in developing an EMS.

4 Project Objective Number 1

For each of the four groups to endeavour to have at least 5 beef properties achieving ISO 14001 certification, based on the principles of sound land management, by June 2002.

4.1 The Groups

There are four pilot groups involved in the pilot project as per TABLE 1.

TABLE 1 PILOT PROJECT GROUPS

Group	Number of Participants
Gippsbeef Pty Ltd	9 properties
Western Downs BeefPlan	4 properties
Y-Not BeefPlan	9 properties
North Australia Pastoral Company (NAPCO)	14 properties (1 property purchased after project start)

4.2 ISO 14001 Standard

Due to the high cost of surveillance audits and the current lack of financial or market incentives to have ISO 14001 certification, only the North Australia Pastoral Company (NAPCO) will progress to registration of final certification.

Of the other three groups, two groups (Gippsbeef and Western Downs) will reach the point of certification and one group (Y-Not) will complete the EMS documentation only. This means three groups will proceed involving an auditor with:

- an introductory meeting,
- a document review,
- a preliminary audit on a sample of the properties, and
- a final audit on another sample of the properties.

These three groups will receive a letter from the auditor stating that their group is ready for certification (compliant with the ISO 14001 standard) and each group will have two months to decide if they wish to complete their certification.

4.3 Auditors

After obtaining seven expressions of interest from auditing firms approved by the Joint Australian/New Zealand Standard (JAS-ANZ) organisation which governs the ISO 14001 standard, Quality Assurance Services (QAS) was appointed to work with the pilot groups towards certification. Gordon Ure from QAS supervised two auditors to work with the groups. Noel Steward is working with the Gippsbeef group, while Garry Allan is working with the other three pilot groups.

Both auditors are professional and helpful, though both auditors have limited experience with agriculture. This has not yet been a problem. It is more important for the producers to know what the auditors expect during the audit process.

As the auditing progressed, it was recognised that the two auditors were slightly inconsistent in the level of detail required to comply with the ISO 14001 standard. This pertained mainly to the section on legislation. This was brought to the attention of the auditing body and will be resolved.

4.4 Cluster Approach

Each group worked towards certification using a 'cluster' approach, i.e. each group will achieve certification, not the individuals. This approach significantly reduces the overall initial cost of certification and subsequent surveillance audits by around 50 percent. The cluster approach also provides a useful way to collectively share the workload and share ideas between the producers. Producers auditing each other as part of the internal audit process proved to be successful.

A disadvantage of a cluster approach will be the administration of the group certification where one member's non-conformance at audit can affect the certification of the other individuals in the group. This is not an issue with a company like NAPCO where the properties are all under one management.

4.5 Gippsbeef

The Gippsbeef group started with 9 farms in the pilot with three farms later withdrawing. One of the original members dropped out of the group as his property was remote from the rest of the group and he felt the group was not proceeding quickly enough. This producer is aiming for ISO 14001 as an individual. The other two producers had personal commitments, which did not allow time for their business to complete the project. The individuals in this group are highly motivated towards marketing their beef and differentiating their environmental performance.

4.6 Western Downs

The Western Downs group has lost one of its original members, thus reducing the group from 4 to 3 businesses. The member dropping out has cited personal reasons including the foreseen complexity, time and financial costs of EMS. This group is also highly motivated. The group has benefited enormously from the assistance of a local Taroom Shire land care officer who has had some prior experience with EMS in the mining industry.

4.7 Y-Not

The Y-Not group will not reach the point of certification. The group consists of most of the members of the Y-Not BeefPlan group centred around Barcaldine in central west Queensland. The group started with a heavy reliance on one person in the group to write the EMS document and share the final document with the rest of the group. For work related reasons this person was not able to do this for the group. This approach is flawed as it is only by the whole group sharing the workload, that all members can understand the process.

The group will complete the document to the point where the auditor passes it as being compatible with the ISO 14001 standard. The group remains keen to work on certification outside of this project. This group has struggled with seeing any short to medium term benefits from having an EMS.

4.8 NAPCO

Under the direction of the NAPCO board of directors and the management of the company's property and environmental planner, NAPCO will within the project, achieve certification on a growing property, a backgrounding property and the company's feedlot.

The company has invested significant time and funds in working towards ISO 14001 certification, including employing a consultant to help write their document using customised software, computer upgrades for each property and the in-house training of property managers.

4.9 Sound Land Management Principles

One of the first activities that each group undertook was to complete an initial environmental review, which involved an environmental self-assessment. This was an excellent method for individuals to learn from each other on environmental standards, compare management practices and establish a benchmark of what constitutes good, fair and poor environmental management.

In the absence of a recognized industry code of practice, this process took an excessively long time for each group. The groups saw this process as integral to arriving at what would later become minimum standards of environmental management for their cluster. The ISO 14001 standard does not require that this exhaustive process be performed, rather the standard relies on an activity, aspect and impact register that identifies all possible environmental issues that are then assessed for risk and assigned an action.

The group self-assessments could be valuable in building regional grazing codes of practice as per the project objective number 5.

The cluster approach to ISO 14001 is the most affordable and effective way to achieve certification against this standard.

5 Project Objective Number 2

Define the processes for achievement of ISO 14001 certification as per objective 1.

5.1 Understanding

Unlike Cattlecare, producers wishing to work with an EMS must comprehend the process inherent to a systems approach, i.e. the concept of plan, do, check and act. An EMS is a series of processes that must be completed using a systematic and documented approach.

Compared to the checklist approach with Cattlecare, an EMS represents a considerable step upwards in complexity and time commitment on the part of the producer.

The most essential component that must be understood is the process of risk analysis. An EMS asks the participant to follow a prescribed process where all activities that potentially threaten the environment are listed. These activities undergo a risk analysis, to a point where the individual property activities of high priority are identified, have operational plans and/or targets in place, and are monitored and reviewed on a regular basis.

Central to EMS is the concept of continual improvement. Cattlecare is a product where the risk analysis is already performed by the administrator (Ausmeat) and continual improvement is also overseen by the administrator, not the producer.

5.2 Implementation

To achieve ISO 14001 certification, the participant must be able to demonstrate not only an understanding of the process but must also provide evidence of implementation on the property. This is done via monitoring impacts, record keeping, internal audits and external audits. The EMS document on its own is not evidence of implementation.

ISO 14001 requires the participant to keep up to date with all the relevant legislation and industry codes of practice, which set the minimum environmental standard in the EMS. Assembling this information in the first place and then maintaining currency is time consuming and difficult for most producers. There is an opportunity for an organisation, like MLA to service the industry with this type of information.

5.3 Monitoring

Most impacts identified by each business as having priority will be monitored as part of their EMS. The importance of simple yet meaningful monitoring tools will be crucial for the success of EMS. There is scope to improve the range of monitoring tools available in the grazing industry. In line with the principles of EMS, not every important impact will need to be monitored immediately. There can be a gradual improvement in the scope of monitoring.

It is essential to focus directly on environmental monitoring as opposed to production monitoring. Favourable production trends do not always translate to good environmental management.

5.4 Group motivation

Several of the private participants in the pilot project have said that had they known how much work was involved in producing a pilot EMS for their industry, they would have never started the project. Unfortunately, the pilot groups could not simply copy the grains generic model; the groups had to understand how the process worked and how the various parts of the system were linked. The grains model the groups used was an early version produced by the Grains Research and Development Corporation and NSW Agriculture. This version had serious shortcomings as a user-friendly and easy to follow document. The groups became much more reliant on the ISO 14001 standard as the project progressed.

Although the groups realised at the beginning that there were no market or financial incentives in the foreseeable future by having an EMS, the groups are disillusioned with the high cost of certification and the surveillance audits. The demand for the services of JAS-ANZ accredited auditing firms by non-agricultural corporations means the costs to attain ISO 14001 certification will not decrease unless the frequency of surveillance audits can be altered.

Currently most firms auditing to the ISO 14001 standard, require a surveillance audit (property visit) every 6 months across a sample of the group or cluster. It appears feasible that the interval for surveillance audits can be increased from 6 months to 12 months, thus easing the financial and time burden to the producer. The ISO 14001 standard stipulates a surveillance audit every 12 months.

5.5 Training

In hindsight, the pilot groups would have benefited from some initial training in EMS and the ISO 14001 standard. The grains model was a good template but did not adequately explain the ISO 14001 principles and 'how-to' of EMS. Any future adoption of EMS will require some basic training for producers.

The language of EMS and working by examples needs to be key elements of training. It may be possible to structure suitable training through MLA's "Edge Network". Training would be best done in stages, involving local examples, producer champions, homework and a telephone help line.

The pilot showed that a producer new to EMS, cannot merely use a generic model or an EMS constructed by someone else. Producers should work with the ISO 14001 standard and use an example EMS as a 'road map', not as a recipe.

5.6 Levels of EMS

EMS can have a future in the grazing industry. A preferred approach to working with EMS, is to provide four levels or tiers of EMS which are all consistent with the principles of the ISO 14001 standard and are recognised by all stakeholders. All four tiers would need to be supported by environmental stewardship and EMS training.

Tier 1, a start-up level, would provide the foundations for an EMS and would focus on an environmental self-assessment, while the rudiments of an EMS are learnt. This rudimentary training would include such components as an environmental policy, register of activities, aspects and impacts and risk analysis.

This tier would not be externally audited.

Tier 2 would consist of an environmental checklist, which could be audited by a Cattlecare auditor. This checklist would be developed by industry and involve no risk assessment by the producer.

Tier 3 would be a step up to an EMS, which is based on ISO 14001 principles, though not to the level of certification. This tier would be audited by a suitably qualified external auditor.

Tier 4, a final level would be an EMS to the ISO 14001 standard and involve a JAS-ANZ accredited external auditor certifying to that standard.

Each tier would be completely voluntary and importantly incorporate the existing property management systems within each business. It is essential that within all tiers, that excessive detail is avoided in both the environmental standard and the process standard. The principle of continuous improvement must be utilised throughout.

Landscape issues should be the initial environmental focus. In line with the principles of ISO 14001, the minimum environmental standards should be those pertaining to relevant legislation and industry codes of practice. There should be scope to incorporate regional environmental standards at any tier of the environmental improvement program.

The relative complexity of EMS and ISO 14001 compared to a checklist approach means that EMS is best promoted in a multi-level, voluntary form, graduating from an introductory level through to full certification and coupled with appropriate training.

6 Project Objective Number 3

Document and evaluate on a 'triple bottom line' basis, the benefits and any difficulties of implementing the ISO 14001 standard for the grazing industry by June 2002.

6.1 Business

The financial cost of audits and surveillance audits to each individual will depend principally on the size of the group or cluster. Achieving ISO 14001 certification as an individual will in most cases be a prohibitive cost and is usually about double the cost of a cluster approach.

For this pilot project, TABLE 2 is a guide to the cost of ISO 14001 certification including estimated travel costs for each group based on the cluster approach.

TABLE 2 GUIDE TO THE COST OF ISO 14001 CERTIFICATION

Group (number of participants)	Audit Certification Cost per property per year (incl. travel)	Surveillance Audit Cost per property per year (3 years post certification)* (incl. travel)
Gippsbeef (9)	\$1,900	\$2,300
Western Downs (4)	\$3,800	\$3,500
Y-Not (9)	\$2,500	\$2,600
NAPCO (14)	\$2,700	\$2,600
Total Average (36)	\$2,600	\$2,600

* Includes cost of certification audit at end of third year.

The cluster approach means only a sample the properties are audited at both the initial certification and the surveillance audits. The greater the number of the properties in the cluster, the less expensive per property is the auditor's fee, however travel to properties has a large bearing on total cost as is the case with the NAPCO audit.

The pilot groups cited several potential business benefits to EMS and include:

- A state of readiness for potential niche markets,
- Improved access to financial grants and loans,
- Improved access to land leases,
- Administration benefits in the case of the larger operations.

Similarly, the pilot groups cited the following difficulties:

- Presently, the "access benefits" listed above are not available,
- The financial and time costs to have an EMS are not currently being offset by the benefits.

Currently there are limited or nil land or water access benefits, financial incentives, market access benefits or bonuses to offset these costs. In theory, over the longer term, there will be on-property cost savings and production advantages resulting from certification. This is due the systemised approach making the overall business work more efficiently.

6.2 Environment

The majority of the pilot producers see themselves as good environmental managers. Many are Cattlecare accredited. The pilot producers admit that the EMS has given them a better focus on environmental management and makes it easier for them to demonstrate their environmental awareness.

It is fair to say that the pilot producers are not representative of the majority of producers in the industry in terms of their environmental management. Overall, the pilot producers are very environmentally conscious and can demonstrate this on their properties. This was supported by the fact that the auditors commented that there has been a lot of environmental work done before the EMS was established. The auditors say this is generally the case with many other industries in which they work.

Quantifiable environmental benefits on the property that can be directly attributed to having an EMS will only be seen over the longer term. Improving the environmental performance of the business remains the primary driver in having an EMS.

A difficulty expressed by the pilot producers was the auditor's lack of realisation of the significance of the landscape issues on a property. The auditors involved have most of their experience in non-agricultural industries, hence their initial focus was often on the 'cosmetic' components of environmental management, e.g. leaking diesel storage outlet hose, rather than the landscape issues, e.g. loss of desirable perennial pasture species, which present the greatest risk of environmental impact on grazing land.

6.3 Social

In a community sense, the groups are taking pride in what they are doing albeit there is more work than they expected in developing their EMS. The social cost/benefit to families and corporations in maintaining an EMS are yet to be seen. It is anticipated that producers with an EMS will feel more secure about their future especially as governments and other groups take more and more interest in rural environmental management.

The pilot producers enjoyed being the leaders in this area and although time consuming, viewed the bottom-up approach as very successful. In addition, the pilot producers became even more environmentally aware and were able to broaden their environmental contacts and thinking.

The systems approach versus the checklist approach is predicted to be a challenge to the majority of producers. However with suitable training and support this cultural change to a plan, do, check and act approach is not formidable over the medium term.

An unexpected but identifiable outcome of the pilot project was the fact that some producers not involved in the pilot believed that having an EMS must mean the owner of the EMS has a serious environmental problem(s) that cannot be rectified using 'normal' corrective measures. This obviously needs to be addressed in future training and education.

At present there are no obvious wider community benefits to the greater community. There is growing interest from government and some producers in EMS, however whether this is sustainable is yet to be seen.

At present, EMS cannot be promoted to producers as having demonstrable business, social or environmental benefits.

7 Project Objective Number 4

Promote to the wider beef industry that the development of an EMS will have a range of potential environmental, marketing and management benefits. This would be ongoing over time.

7.1 Benefits

With this project, being under two years in duration, it was impossible to demonstrate unequivocal environmental, marketing and management benefits. Most of the pilot producers had achieved many environmental goals without an EMS. The range of ***potential*** benefits identified to date include:

- lower insurance premiums,
- reduce land rates and rental,
- provide access to markets,
- provide price premiums,
- improve access for the leasing of land,
- reduce bank interest rates,
- provide triple bottom line reporting,
- improved productivity and efficiency through reduced waste and environmental risk,
- encourage eco labels,
- achieve catchment objectives,
- allow land stewardship payments,
- provide a stock-take of natural resources,
- permit Landcare and Cattlecare to be instrumental in adapting EMS to local conditions,
- allow the incorporation of the 80% of environmental issues not included in environmental legislation,
- improve access to Farmbis training grants,
- assist applications for NHT funding,
- provide tax incentives.

If EMS and especially ISO 14001 are to be adopted by a significant number of graziers, tangible benefits must first start to appear. The implementation of an EMS should give producers more information, a better understanding and the ability to deal with environmental challenges into the future, which should diminish the need for outside regulation and monitoring.

The groups and individuals within the project have increased the awareness of EMS by formally and informally speaking with other producers and researchers. The project has become a reference point for many of the Commonwealth and State agencies.

Further avenues of communication on the outcomes of the project are being formulated by the groups and MLA.

7.2 An Industry EMS

The pilot groups have spoken of an EMS that is not to the ISO 14001 standard, rather an EMS that complies with a standard agreed upon by all of the industry stakeholders. Such an industry EMS would need to be externally audited and be recognised by our domestic and overseas customers, as well as the environmental stakeholders.

Based on the observations so far, this idea has merit if it can remain simple, voluntary, inexpensive and perhaps offer different entry levels. It is essential that such a system does not work in isolation to existing QA like Cattlecare. An industry EMS is one of the levels or tiers early described.

With a range of tangible incentives, the percentage of producers who will utilise an EMS will be significant.

8 Project Objective Number 5

Document by June 2002, key elements which might contribute to Codes of Practice for the beef industry and its environmental management.

8.1 Code of Practice

As explained earlier, the initial environmental review undertaken by each group could form the basis of an environmental code of practice for the beef industry. The ideal will be a code that is regionally specific and accommodates the relevant minimum legislation as a measure of duty of care.

A grazing industry code of practice should not be a recipe. The code of practice should provide an easy to read summary of relevant legislation and regulation with no prescriptive environmental minimal standards. Such a code of practice must have industry acceptance and have input by all stakeholders. The Queensland Farmers Federation code of practice for agriculture is a good example of what is required for the grazing industry.

The grazing code of practice should be linked to Cattlecare/Flockcare and should include the following elements of environmental management:

- People management,
- Native and introduced animal management,
- Soil management,
- Water management,
- Vegetation management,
- Air management, and
- On-farm and off-farm effects.

8.2 Focus Farms

This may be a useful technique to further measure the benefits and costs of implementing an EMS over time. The principle involves asking several pilot properties to cooperate over a number of years to record in detail what changes at a business, social and environmental level arise from EMS.

It would be advantageous to have several stakeholders involved in the funding and steering of these pilot farms. Such stakeholders include the environmental groups, processors, supermarkets, bankers and governments.

Focus farms present an opportunity to measure the costs and benefits of EMS for the whole business over the medium term.

9 Industry Matters

9.1 AFFA Discussion Paper

MLA's response to AFFA's discussion paper on EMS in agriculture (lodged 31 March 2002) included the recommendation that a steering group was being set up to progress the discussions.

The six recommendations made in the MLA response paper were:

- 1) An across agriculture steering group,
- 2) Financial incentives for producers,
- 3) Utilising existing industry QA and Landcare,
- 4) Clarifying government's role,
- 5) Essential for EMS to be voluntary, simple, cost effective, stepped and beneficial,
- 6) Involving all stakeholders in the supply chain

9.2 Australian Landcare Management System (ALMS)

Regular communication with operatives of ALMS has occurred to compare progress on the pilot project and ALMS. Recently an ALMS coordinator has been established in Oakey, near Toowoomba, to set up pilot groups. ALMS is working closely with the Landcare movement.

At this stage, ALMS is pursuing the ISO 14001 standard as the building block for its catchment EMS. The catchment or bioregion cluster approach by ALMS has advantages in lowering the overall cost of audits and benefits from the peer pressure amongst producers. ALMS is looking for catchment scale benefits to the environment and the offer of a recognised label (possibly the Landcare logo) to identify the participating businesses as being managed in an environmentally sound manner.

ALMS involves graziers as well as all other land managers in a catchment. To avoid the inefficient use of resources and duplication, it is important that MLA and ALMS continue to look

for common ground. Members of MLA should not be allowed to become confused on environmental improvement programs and should be clear on how Cattlecare and Flockcare will work with environmental care.

9.3 Cattlecare

The understanding is that Ausmeat are still looking to add an environmental checklist to their quality assurance framework. Regular communication with Cattle Council of Australia is taking place to keep informed on Cattlecare developments.

9.4 State Governments

NSW Agriculture is actively promoting EMS at every opportunity.

The Victorian Department of Natural Resources and the Environment (DNRE) is committed to seeing EMS expand in agriculture. The DNRE has assisted the Gippsbeef group, although they appear to have focused on biodiversity protection.

The Queensland Departments of Primary Industries and Natural Resources and Mines (NR&M) together with the Environmental Protection Authority (EPA) have run a series of EMS awareness workshops around the State.

9.5 MLA Review of Quality Assurance

The current review of QA in the red meat industry may have a bearing on the application of the EMS pilot project's outcomes. The future of Cattlecare and EMS are related, as producers in the pilot are saying that they do not want more than one QA system or one auditor to be visiting their property.

A working EMS will require considerable more time and expense than Cattlecare of the producer which is an important consideration given the relatively low uptake of Cattlecare. The nationwide adoption of Cattlecare is only 16% of specialised beef properties, or around 25% of the national herd. The national adoption of Landcare by practising farmers is 43%

9.6 Australian Country Choice (ACC)

ACC is planning to integrate the EMS at its processing plant, feedlot and properties supplying cattle. The EMS to the ISO 14001 standard will work throughout their whole supply chain.

It is understood ACC is still negotiating with MLA on the donor company funding arrangements to see this supply chain EMS developed. The pilot project is able to offer some strategic guidance to the consultants appointed by ACC in relation to the on-farm component of their EMS.

9.7 Tropical Savannas CRC

There is currently an MLA funded project in north Australia aiming to develop regional codes of practice for the environment. There will be opportunities for cross fertilisation between the pilot project and this work.

It is essential for MLA members, the grazing industry and the rest of the community that there is not a confusing proliferation of environmental management/improvement programs. Any program should not be isolated from QA such as Cattlecare and Flockcare.

10 Project Budget

10.1 Forecast to budget

TABLE 3 shows the budget that appeared in the project proposal with the additional of a column labelled Forecast Actual to 31 December 2002.

TABLE 3 BEEF INDUSTRY EMS PILOT PROJECT
(Revised 4 December 2000) (Revised 11 August 2001)
(Based on 4 pilot groups)
Funding - Total Funds = \$191,500 (\$222,500)

DATE	MILESTONE	OPERATING COSTS	OVERHEADS	TOTAL BUDGET	FORECAST ACTUAL TO 31 DECEMBER 2002
1 December 2000	Working group meeting	5000		5000	3,000
Life of project	Project Coordinator	54000	10000 (\$15,000)	64000 (\$69,000)	76,000
Life of project	Groups coordination costs	10000		10000	10,000
Life of project	Steering Committee	6000		6000	5,000
Life of project	Communication	9500		9500	9,500
15 December 2000	Initial combined workshop for groups	15000		15000	10,000
30 June 2001	6 monthly workshop	15000 (\$10,000)		15000 (\$10,000)	0

Environmental Management System Beef Pilot

DATE	MILESTONE	OPERATING COSTS	OVERHEADS	TOTAL BUDGET	FORECAST ACTUAL TO 31 DECEMBER 2002
31 July 2001 and ongoing	Progress report from each group	6000		6000	0
31 December 2001	Self assessment and internal audit review	<i>(At cost of individual)</i>			0
30 May 2002	Final certification costs for all groups <i>(Estimate \$2,700 per property * 25 properties)</i>	<i>(\$75,000)</i>	-	<i>(\$75,000)</i>	68,000 (includes self-assessment and internal audit review)
30 June 2002	Final reports from each group	6000		6000	3,000
September 2002	Final groups workshop				\$12,000
Sub totals		172,000 <i>(\$196,500)</i>	10000 <i>(\$15,000)</i>	182,000 <i>(\$211,500)</i>	\$196,500
Add 5% contingency		9,000 <i>(\$10,000)</i>	500 <i>(\$1,000)</i>	9,500 <i>(\$11,000)</i>	0
Total		\$181,000 <i>(\$206,500)</i>	\$10,500 <i>(\$16,000)</i>	\$191,500 <i>(\$222,500)</i>	\$196,500

Revised budget at 11 August 2001 is \$31,000 over the budget dated 4 December 2000. This is due to the higher than expected cost of certification.

Each of the four pilot groups has received a commitment of \$25,000 from MLA to be used for funding the cost of group meetings, project workshops, group secretary, general communications and either the internal audit review by a third party assessor, or the cost of the final certification for each property.

During the course of the project, it became evident that the internal audit review would need to be done by the external auditor QAS. In discussion with the steering committee, it was deemed appropriate for each group to use the \$25,000 allocation for the total cost to reach certification as well as the cost of group meetings, project workshops, group secretary and general communications.

The amount of time spent to date by the pilot groups in assembling their EMS is significant. Refer TABLE 4.

TABLE 4 ESTIMATED GROUP TIME COMMITMENT TO DATE

	Gippsbeef	Western Downs	Y-Not	NAPCO
Time (hours)	1,050	1,160	450	2,140

The pilot groups have said these estimated hours are conservative. It is estimated the final project cost will finish at around \$200,000 as per the budget in TABLE 3.

10.2 Future Project Activities

A timetable showing group progress is shown in TABLE 5.

TABLE 5 ESTIMATED TIMETABLE TO COMPLETE AUDIT PROCESS

Group	Introductory Meeting (IM)	Document Review (DR)	Preliminary Audit (PA)	Final Audit (FA)
Gippsbeef	Completed	Completed	Completed	Completed
Western Downs	Completed	Completed	Completed	November-December 2002
Y-Not	Completed	In progress	Will not happen	Will not happen
NAPCO	Completed	Completed	November-December 2002	2003

A workshop to consolidate the project findings and recommendations was held in Brisbane on 5 September with representatives of all the pilot groups

Following the submission of this final report, a separate manual will be prepared which will include the elements of the ISO 14001 standard supported by examples of the documentation required to meet the standard. This manual should only be used by producers with support training, however the document will improve the awareness of producers to what is demanded of an EMS to the ISO 14001 standard. The manual will not be a recipe for EMS, rather a road map to working with ISO 14001.

The final total project cost should be around \$200,000 which is within 5% of the original project budget.

11 Discussion

This project was designed to test the application of EMS and ISO 14001 under Australian grazing practices. Thanks to the interest and endurance of the pilot producers, the outcomes of the project are a valuable insight to the workings of EMS and what role EMS and ISO 14001 can play in the Australian grazing scene.

The principal outcomes of this project are summarised in the first section of this report under the heading of Summary. These outcomes should be read in conjunction with the remainder of this report.

Comments from readers of this report will be welcomed.