

Part One - Overview

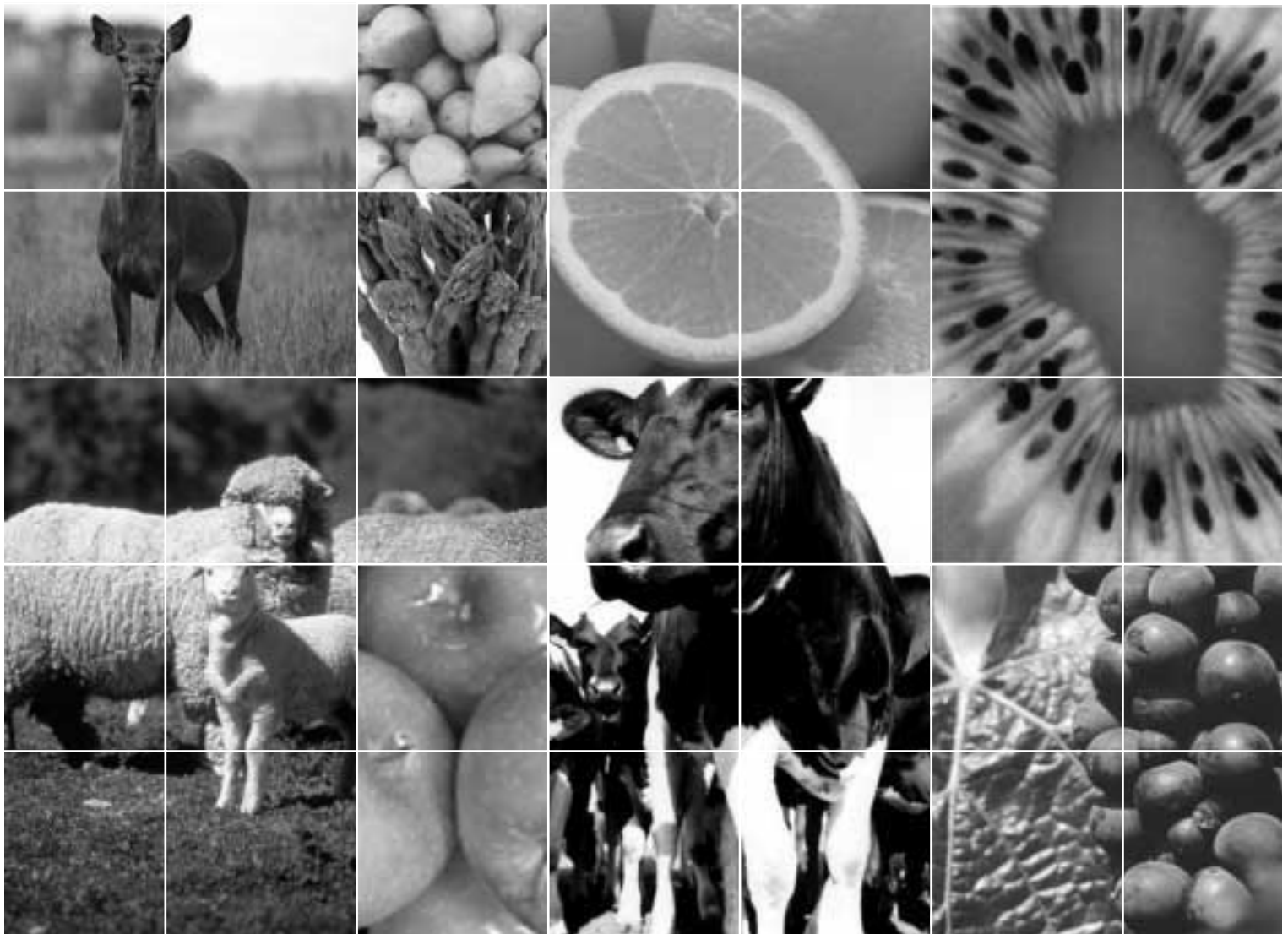


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1.0 Sustainable Agriculture Management Systems Network

1.1 Background to SAMsn

The Sustainable Agriculture Management Systems Network (SAMsn) was established in 2000 in response to industry concern about the proliferation of industry on-farm environmental management and quality assurance programmes, and the need to ensure that both sustainability and profitability were incorporated into the approach to agriculture and horticulture in the future.

The establishment of the Network was based on areas of 'commonality' across the agriculture and horticulture production sectors. It has an objective to more efficiently develop commonality and build on the known New Zealand advantage of high quality and environmentally friendly production - the New Zealand 'clean and green' image.

Implicit in this is the ability to produce and develop agriculture and horticulture products in a sustainable manner. Productivity and good resource management are interlinked.

The Network developed a focus on Sustainable Management Systems, encompassing the 'pillars' of environment, economics and social responsibility, and the interactions between the 'pillars' in an on-farm context. This recognises that the future of the New Zealand primary industries depends on both sustainability and profitability.

It was recognised that programmes currently developed and used by the sectors, such as Environment Management Systems (EMS) and Quality Assurance (QA) programmes, contributed toward such an approach.

Such programmes are increasingly being required of producers to provide markets and communities with assurances about the sustainability of primary production systems.

Every farm business produces a range of products (e.g. milk, meat, fibre, livestock, horticultural, arable and /or forestry products), with a range of independent EMS/QA compliance requirements.

This has resulted in multiple systems addressing similar issues across agriculture and horticulture. The problem is that this largely ad-hoc development of systems has resulted in duplication of effort, and led to concerns about compliance costs and compliance fatigue amongst farmers and growers.

The New Zealand agriculture and horticulture sectors that have already developed EMS/QA-type programmes are individually proud of their particular industry systems, developed in response to market opportunities. It is unrealistic to expect them to abandon their individual systems for a national, non-partisan, EMS/QA.

In response to this trend SAMsn has undertaken to develop a framework that could form the basis of any agriculture or horticulture industry sustainable management programmes in the future. It has also identified information and a wide range of possible resources that could be used by organisations to develop and refine programmes, which may lead to the evolution of common approaches and elements across programmes. The purpose is to add value to producers, sectors, industries and businesses, with a focus on both productivity and sustainability.

1.2 Project Outline

The Network was successful in obtaining funding from the Sustainable Farming Fund, managed by MAF, to undertake research and develop a framework to underpin sustainable management systems in the agriculture and horticulture sectors. This report is part of the first stage of that project.

In March 2003 a workshop was convened of industry stakeholders to present the findings of the first stage and to confirm the direction for the framework.

The second stage is to build on the findings and develop a framework of generic principles that could underpin the development of any SMS-type programmes for agriculture and horticulture in New Zealand.

The findings from the SAMsn research and framework development will assist in the identification of critical issues and facilitate consistency in the development and management of future SMS programmes.

2.0 The SAMsn Initiative: This Report

This report documents research undertaken for SAMsn on current international and New Zealand programmes and their contribution toward sustainability.

It includes four parts:

Part One: Overview

Part Two: Literature Review

Part Three: A survey of international and New Zealand EMS and QA programmes

Part Four: Case Studies - A review of selected New Zealand EMS and QA programmes

Part One is an Overview, which presents background information to the project and draws together the main findings and themes from Parts Two, Three and Four. It also includes descriptions of the programmes and systems referred to in this report.

Part Two is a literature review undertaken to gain a clearer understanding of issues relating specifically to the development and operation of EMS. The findings of this review assist in the identification of critical issues and possible strategies that can be used for the optimal design, development and management of future EMS /QA-type programmes in New Zealand.

Part Three documents approaches to primary sector EMS/QA programmes in New Zealand and overseas to identify the key drivers and components of such programmes.

Part Four includes in-depth case studies of selected New Zealand EMS/QA to determine characteristics of the programmes and provide a brief review of the current costs of compliance.

Information contained in this report was obtained from:

- reference material held by the authors;
- a literature search;
- internet search;
- contact with appropriate parties; and
- obtaining copies of programmes reviewed.

The four parts of this report have been written to enable them to be stand-alone documents, necessitating some repetition of material in a number of parts.

A glossary of terms is included in Appendix One to describe acronyms used.

The questionnaire used for the Case Studies in Part Four is included in Appendix Two.

3.0 A Background to SMS Programmes

A Sustainable Management System (SMS) is a systematic approach that any enterprise can use to identify and manage its environmental, social and economic impacts. As an integrated business management tool, a SMS also provides opportunities for improved business performance by complementing and building on existing activities such as best management practices (BMP's), Codes of Practice, product certification and quality assurance (QA) schemes.

Such systems are relevant to agriculture and horticulture as they provide a framework through which on-farm sustainable management can be assessed and addressed.

Within the broader scope of existing on-farm management programmes there are many types, each with an individual focus, because each programme reflects the requirements of the industry or sector for which the programme was developed. However underlying the range of programmes are principles that are similar in that they seek to develop systems that address on-farm issues, provide assurance to the customer or consumer about the methods used to develop the product, and maintain profitability to the producer.

The scope of the current analysis is to identify the underlying themes and factors which have led to such programmes being effective.

Given the range of programmes any analysis must clearly recognise that it is difficult to compare programmes, because of the distinct differences in perspective and scope. It has become apparent throughout this study that terminology is used in various ways, and not necessarily consistently. For instance, the term Environmental Management System (EMS) has been applied in a number of ways, to both programmes and systems.

To provide clarity, the different types of programmes and systems are described below.

This report groups similar programmes together, however it should be acknowledged that in some cases the classification and boundaries can be somewhat blurred. The term 'EMS/QA-type programmes' is used in a generic sense to describe a range of programmes.

4.0 Descriptors

4.1 Programme Descriptors

The following types of programmes are identified in this report:

Codes of Practice (COP)

Codes of Practice set out best management practices, usually on specific issues or for specific sectors. They are usually voluntary, although they may form the basis for standards or other regulatory mechanisms. Codes of Practice are sometimes incorporated into other programmes to address specific issues. For instance: *The Code of Practice for Fertiliser Use* is used in a number of EMS/QA-type programmes to address fertiliser issues.

Environmental Management Systems (EMS)

The term EMS is used in a number of ways. It is sometimes used to describe a system model for developing programmes, and in other situations is used to describe a programme itself. Generally throughout this report the term is used as a programme type, but it is recognised that the system model is used as a foundation for such programmes.

Environmental Management Systems are a set of procedures developed and used by businesses to reduce environmental risk and impacts on the environment. The nature of the EMS will vary depending on the organisation and its requirements. In most cases the EMS will include:

- goals and objectives;
- processes for ensuring that these goals and objectives are met; and
- processes for continually updating and revising the EMS.

Further details on EMS are included in Part Two: Literature Review.

Integrated Management Programmes (IMP)

An Integrated Management Programme is similar to a Sustainable Management System in that it looks at an operation in a systemic way and aims to put conditions or constraints on some management practices to minimise negative impacts. However the approach is not necessarily totally inclusive of the three components of sustainability - economic, environmental and social considerations.

Integrated Pest Management (IPM)

IPM strategies are focused on the careful consideration of all available pest control techniques and the subsequent integration of appropriate measures that:

- discourage the development of pest populations;
- keep pesticide and other interventions to levels that are economically justified; and
- reduce or minimise risks to human health and the environment.

IPM emphasises the growth of a healthy crop with the least possible disruption to agro-ecosystems and encourages natural pest control measures. Some IPM programmes have evolved and grown into EMS-type programmes.

Quality Assurance (QA)

Quality Assurance programmes have a focus on ensuring the quality of the product to the consumer requirements. Food safety is a key component of food-based QA systems. While such programmes may include components that address wider issues, such as environmental matters, these are secondary to the focus on a quality product.

Standards

The term 'standards' is used in a number of different ways and it is important to establish the context in which the term is being used.

A 'Standard' may be a required set of principles or practices that have a degree of regulatory force – that is, a set of criteria that must be met.

Alternatively, a 'standard' may be an industry-developed set of protocols that describe 'best practice' and form a benchmark for the industry, but are not necessarily required or legally have force.

Standards have been incorporated into EMS/QA-type programmes to address specific issues. For instance: *NZS8409:1999 The Code of Practice for Management of Agrichemicals* is used for agrichemical issues in a number of EMS/QA-type programmes.

Sustainable Management Systems (SMS)

Sustainable Management Systems are based on the three components of sustainability – environment, economic and social. A SMS would consider all components as part of a management system. This provides a 'systems' approach to issues, in that the components are not considered in isolation.

4.2 System Model Descriptors

The following is a brief descriptor for a number of systems that have been used in the development of EMS/QA-type programmes. More detail on these systems is included in Part Two: Literature Review.

Environmental Management Systems (EMS)

As noted in the Programme Descriptors above, EMS is used in a number of ways. It is sometimes used to describe a system model for developing programmes, and in other situations is used to describe a programme itself. Generally throughout this report the term is used as a programme type, but it is recognised that the system model is used as a foundation for such programmes.

Hazard Analysis at Critical Control Point (HACCP)

In the New Zealand food sector HACCP-based systems have been adopted more widely than ISO 14000, a reflection of the principal focus of HACCP on food safety issues and the relative priority of this for many New Zealand companies. HACCP is widely recognised by New Zealand's main trading partners. The European Commission has incorporated HACCP principles into its Food Hygiene Directive and revised Directives for Meat Production. HACCP can address issues such as residues, quality control and traceability and could be extended to cover other environmental risks related to production.

Critical control points are points in an operation where one can apply a control to prevent or minimise a hazard from occurring, and then set acceptable safety limits to ensure that the limits are not exceeded.

HACCP is a systematic method based on seven steps:

1. Conduct hazard analysis
2. Identify critical control points for each step
3. Establish critical limits
4. Establish monitoring requirements of each CCP
5. Establish corrective action
6. Keep records
7. Verify the HACCP system is working correctly.

International Standards Organisation (ISO)

ISO systems focus on the quality of the management processes of an organisation. ISO establishes a set of standards, which participants seek to achieve in order to be compliant with the requirements of the ISO.

In 1993 ISO established a committee to develop a series of standards for EMS. The standards include:

- ISO 14001 - a specification for certifying an EMS; and
- ISO 14004 - guidelines and principles for an EMS.

ISO 14001 is an environmental standard that specifies the structure of an EMS and sets the framework for an organisation to determine organisational environmental objectives.

The ISO 14000 standards enable companies and organisations to develop an EMS based on the ISO requirements that can then be certified by an appropriate external agency.

The Natural Step (TNS)

The Natural Step is an international non-profit environmental education business, with offices in Sweden, UK, Canada, Japan, Australia, NZ, Israel, South Africa and the USA.

The Natural Step is not a quality assurance programme, rather it is a process that a business can work through to develop a more environmentally friendly business and workplace. Each business develops its own programme, with the help of advisors from TNS, which sets out a framework within which development can be assessed for levels of sustainability.

Total Quality Management (TQM)

Total Quality Management seeks to improve total performance, coordination and productivity of an organisation and focuses on the development of a corporate culture committed to the achievement and maintenance of quality and continual improvement. It is not specifically environmental or sustainability focused, rather taking in all aspects of any organisation.

Triple Bottom Line (TBL)

Triple Bottom Line Reporting is a mechanism whereby all the performance of an organisation is assessed, not just the financial performance. This approach has been adopted by an increasing number of companies that are interested in monitoring and enhancing their overall performance, as well as generating positive public perceptions. Environmental quality, social responsibility and economic prosperity are assessed, with a need to assess performance against best practice standards.

5.0 The SAMsn Initiative: Summary of Findings

5.1 Part Two: Literature Review

A review was undertaken of published information specifically on the emergence and development of Environmental Management Systems (EMS) within the context of sustainable management. This was then used to inform the identification of key themes for EMS/QA-type programmes.

The outcomes of the literature review are summarised as follows:

International Context

Environmental Management Systems have been formulated as a response to growing concern over the sustainability of human activities on the environment. The World Commission on Environment and Development (1987) presented the concept of sustainable development, which has led to the development of systems to assist achieving the objective. EMS-type systems are one part of such a response, although the literature raises concerns as to whether the cultural and social aspects of sustainability are adequately addressed through such systems.

New Zealand Context

Within the New Zealand context, the Resource Management Act (1991) has a focus on sustainable management, although it is questioned in the literature as to whether this is well understood and whether there are clear measurable outcomes to assess the extent of achieving this goal.

Generic Systems for Sustainable Management

There are a range of systems or models to assist organisations work toward sustainable management. These include International Standards Organisation (ISO), Total Quality Management (TQM), The Natural Step (TNS), and Eco-labels. Each encompasses different models and procedures to achieve the outcomes sought. The relevance of each is dependent on the objectives of the programme. The literature suggests that there are a wide range of options available to organisations interested in implementing environmental management systems, and that it is possible for an organisation to use one type of system, or a combination of approaches, either in a formal or informal manner, based on an organisation-specific environmental policy, which encompasses the aim of sustainable management. Sustainable management

considers social goals alongside economic and environmental goals. Social goals include justice and equity and there is also the opportunity to consider traditional Maori environmental management within such systems.

A Role for EMS in Agriculture

There is a role for the use of EMS-type systems within agriculture, with the pressure for such systems increasing due to greater environmental awareness over the past decade. Factors influencing the adoption of EMS include maintaining a clean green image, access to markets, maintaining food safety standards, complying with supermarket environmental requirements, and pressure from current environmental legislation. EMS are a non-regulatory approach which are considered by some writers to have benefits over regulation. These writers also identify that current environmental policies are not providing incentives for environmental stewardship, which is considered an inhibiting factor for the uptake of such systems.

Tools to Assist Agriculture

There are a range of tools that are available to assist agriculture in the development of EMS. These include a partnership approach, use of life cycle analysis, risk assessment and environmental farm plans. Such tools can assist farmers identify the impacts of activities. Partnerships are a new initiative where an agreement is reached between a business and a governmental-type organisation to achieve certain environmental improvements in exchange for some benefit provided by the other partnership participant. Such agreements are seen as middle ground between regulation and voluntary approaches to environmental management.

Measuring Success

Mechanisms need to be put in place to enable the measurement and evaluation of the outcomes of a system.

Triple Bottom Line Reporting (TBL) is a mechanism whereby all the performance of an organisation is assessed, not just the financial performance. Environmental quality, social justice and economic prosperity are assessed against best practice standards. The use of an EMS-type system can assist in the assessment of such indicators. Reporting, such as TBL, can provide a valuable mechanism for determining the strengths and weaknesses of the EMS, and environmental reports can provide credibility for EMS by allowing public scrutiny.

5.2 Part Three: Survey of International and New Zealand EMS/QA Programmes

A survey of programmes being used by agriculture and horticulture industries, both internationally and in New Zealand, was undertaken to identify the key drivers and components of such programmes.

International Programmes

There has been widespread development of EMS/QA-type programmes in Europe, USA, Japan as well as other developed nations. The catalysts for these developments include:

- food safety concerns;
- environmental protection;
- market positioning; and
- business improvement.

As a result of these initiatives, compliance with some form of EMS/QA-type programme has become a precondition of supply to many major retail chains. This in turn has driven the development and adoption of programmes in other parts of the world, including New Zealand.

Trends

A number of trends are associated with the development of these programmes.

Marketing Value: Values range from a strategy for premium market positioning to a minimum for access to value markets.

Harmonisation: There are increasing initiatives to harmonise programmes and standards at national, regional and international levels.

Widening and deeper coverage: Many programmes are evolving to incorporate coverage of a wider range, and greater depth, of values, such as environmental and social values.

Independence: There is a move towards more robust external auditing as well as management of programmes by independent agencies against standardised management system models e.g. ISO, HACCP.

Linkages: Programmes are being referenced to externally developed and managed codes of practice and regulations.

Drivers

The international sustainability, environmental management or quality assurance programmes reviewed have been grouped based on the driver for

their development, as this has often been a significant factor in the focus, structure and relative impact of the programme.

Key drivers that were identified for the international programmes were:

- regulatory bodies;
- producers; and
- retailers and industry.

Regulatory bodies include bodies such as the Food and Agriculture Organisation of the United Nations (FAO).

Producer groups have taken initiatives to establish systems and programmes which ensure the continued access to markets. Examples include the *European Initiative for Sustainable Development in Agriculture (EISA)* and a range of programmes that have been developed in compliance with EISA, such as, *Linking Environment and Farming (LEAF)*, in England. In Britain, the National Farmers Union has developed *Little Red Tractor* as a farmer-developed standard which is now widely recognised.

Retailers and industry groups have also developed standards that aim to provide their customers with a level of assurance that their products comply with a range of values. The driver is the establishment of a common standard for safe and sustainable agriculture. Programmes have been developed to be consistent with the EUREP-GAP programme, such as Tesco's *Nature's Choice*.

New Zealand Programmes

Twenty-one programmes, across a wide range of production systems, were reviewed. Across this range of programmes some synergies emerged between them, with some components being a common theme. Such components include the level of registration and auditing required; mechanisms used in the delivery of the programmes, such as checklists and use of external documents; and also the nature of the drivers that underpin the programmes.

A number of systems models have been used to underpin EMS/QA-type programmes. These include ISO, HACCP and Triple Bottom Line. The system used reflects the driver and programme requirements. For instance, where there is an emphasis on food safety, a HACCP-based system may be used as the foundation for the programme.

Increasingly programmes are being extended to have a wider and deeper coverage, reflecting the demand for environmental and social accountability. A modular approach has sometimes been used, thereby enabling

a base programme to have additional components incorporated, and so extend the scope and coverage.

In addition, some programmes have a tiered or phased approach to enable farmers to progressively adopt parts of a programme, or to work toward a level that is sought for the specific operation. This may assist with uptake in that a total programme could appear too daunting as a whole, but adoption in parts is more manageable.

Many programmes are drawing on existing resources, such as Codes of Practice, and incorporating these into a programme. In addition, some programmes draw on, and are linked to, regulations that are relevant or underpin the programme, for instance animal welfare regulations.

A majority of programmes reviewed have some component of auditing, which may lead to certification or accreditation. Auditing can range from self-assessment to a full external audit. The level and type of auditing reflects the requirements of the programme driver. Where the programme is to be used as a basis for market access, verification of compliance is a key component of the programme.

Often programmes are based on a 'checklist' approach, whereby the farmer or grower works systematically through issues identified as part of the programme. Such an approach can then be used as a basis for auditing, either externally or by self-assessment.

The majority of the programmes reviewed were sector-specific, but more generic programmes are being developed that can be used across a range of sectors or industries. *GreenTick™* is one such example. The principles of sustainable management are consistent and are applied as appropriate to the business or industry adopting the programme.

Adoption levels of programmes vary greatly but are greatest where there is a compulsory or strong market driver to adopt the programme.

5.3 Part Four: Case Studies – A Review of Selected NZ Programmes

A Case Study review of five New Zealand programmes was undertaken. The analysis of the Case Studies found that within the range of programmes reviewed there are some common themes and components that have contributed to the successful implementation of the programmes.

Scope of Programmes

The programmes generally covered similar issues, however there was a variance as to how intensively these were monitored and managed. Some of the programmes were designed to integrate with other industry quality assurance initiatives that cover the whole supply chain.

Programme Management

Management of programmes varies. Some industry organisations undertake the management of the programmes internally, such as *DeerQA*, while others, such as the *Fresh Produce Approved Supplier Programme*, contract out many aspects of the programme management. A feature of all the programmes reviewed were the pragmatic approaches to management and auditing, with the aim of developing approaches that optimise the value of the programmes, while minimising the related compliance costs.

Cost Benefit

A Cost Benefit Analysis was undertaken as part of the Case Study review, to determine the compliance costs associated with the programmes. The direct compliance costs were no higher than 2 percent of gross revenue. Costs identified were initial set up costs and ongoing costs, with many of the initial set up costs seen as costs related to establishing good business practice, rather than specific to the programmes. In a business economic sense such costs are not considered significant.

The benefits appear to be closely related to the purpose and type of system and the degree to which direct benefits can be quantified, such as a reduction in agrichemical use. Other benefits include maintenance of access to markets and achieving preferential supplier status.

The more positive the cost benefit relationship, the greater is the potential for adoption. This is more likely where systems based on QA or IPM incorporate other environmental and sustainability elements and have clear linkages with obvious economic benefits.

Given the benefits that can accrue from adoption of the programmes it is considered that the costs should not be seen as a barrier to uptake or adoption of a programme.

Key factors

A number of key factors emerged from the Case Studies review.

The involvement of relevant stakeholders in the development of the programme, including marketers, is critical, especially where the programme is to address the total chain management.

It is noted that some programmes are being extended to meet an increasing range of objectives. Other programmes reviewed in Part Three of this report also demonstrate that the modular approach to incorporating additional matters can work effectively. Increasingly, the additions include a wider range of environmental components and have a broader focus on sustainable land management.

Generally most programmes include an external audit. The notable exception is *Market Focused*, which relies on farmer self-assessment. Where the programme is the basis of accreditation, certification or market access, such external confirmation of adoption and on-going compliance with the required standards is considered essential.

The adoption rate is higher with programmes that are important to ensure access to a market. They are not compulsory to the extent that a grower could choose whether or not to access such a market. However there has been an acceptance that to ensure access, adoption and compliance with the programme will be undertaken. This is demonstrated in the high level of uptake in some programmes, such as the number of vegetable growers accredited under the *Fresh Produce Approved Supplier Programme*, which is motivated by the demands of local supermarkets, or the 100 percent of kiwifruit growers adopting *KiwiGreen*.

The content and composition of the programmes reflected the key drivers, such as market image, food safety and market access.

The analysis found that there is a general acceptance of programmes that are industry-developed and led, along with a clear focus on market objectives.

6.0 Emerging themes

6.1 Sustainable Management Systems

One aspect that is evident is the proliferation in the number and types of programmes. While this review has grouped similar programmes together, such classifications can be somewhat arbitrary. Where the objective is to develop programmes to enhance sustainable management within agriculture and horticulture, 'Sustainable Management Systems' (SMS) are relevant as they incorporate economic prosperity, environmental quality and social responsibility within a total framework. The review has demonstrated that programmes are at various stages of development and the move to incorporate a range of sustainability factors is increasing as programmes are reviewed and evolve over time.

6.2 Drivers

There are a range of drivers for programmes, including regulatory, industry and market drivers. Each programme reflects the drivers that underpin the programme.

Any evaluation of programmes should include an assessment of the extent to which the driver objectives have been achieved. For instance:

- Has *Market Focused* aided the development of a more positive public image for the dairy sector?
- Has *Sustainable Winegrowing* helped to maintain the 'clean green image'?
- Has *Fresh Produce Approved Supplier Programme* delivered adequate levels of food safety assurance to the satisfaction of the markets?

Only when such assessments have been undertaken can the true value and success of the programmes be quantified.

6.3 Implications for SAMsn

Each programme reviewed in Parts Three and Four was assessed as to the possible use or implications for SAMsn. From the analysis a number of messages have emerged.

The desire for integration between programmes was reinforced so that only one auditor needs to go through a property gate. There is a need for New Zealand programmes to be able to establish relationships between programmes, such as EUREP-GAP, to enable this to be a reality.

External auditing is seen as critical to maintaining quality standards.

There are programmes that have adopted overseas developed material, rather than developing a New Zealand specific programme. For small organisations this may be a cost-effective way to develop a programme. The overseas models also contain valuable material which could be equally relevant to New Zealand, especially with the increasing pressure to comply with European-developed standards for supply. They can, however, have components that are not relevant or appropriate to New Zealand production conditions.

There is the potential for a grouping of businesses or an organisation to develop and deliver a programme and outcomes that meet organisational objectives, which may be more appropriate than a sector-type programme.

A small number of programmes include specific training for users to assist with adoption and implementation. Such training opportunities could be incorporated into other programmes.

The opportunity for information transfer and a regional focus of programmes is used in some cases, however national consistency and standards need to be maintained.

The ability to extend the scope of a programme emerged as an important message. The ability to add modules or establish a range of levels within a programme is a design possibility, if new drivers for the extension of the programme emerge.

6.4 Key factors for the design and management of SMS programmes

Based on the analysis undertaken in this research, a number of elements have been identified as contributing to the effectiveness of the programmes and so are important in the design and subsequent management of SMS-type programmes. Some elements relate to the process undertaken to develop an SMS, and others relate to the structure and style of the SMS.

Development Process

A process is enhanced if:

- farmer and stakeholder input is sought during development;
- the industry is strongly united and focused on a specific customer group or well-defined market;
- it is highly integrated through the supply chain so that benefits can be passed back to the producer;

- there is the ability to exclude or penalise non-adopters;
- the business rationale for the adoption of the system is obvious and clearly articulated;
- social drivers are considered; and
- scientific rationale is incorporated.

Structure and style

Key considerations are that the SMS is:

- simple, cost effective and user friendly;
- tiered – able to be phased in and taken up in stages;
- adaptable and has a commitment to continuous improvement;
- able to be audited;
- able to be benchmarked against similar systems;
- able to be linked or harmonised into, or integrated with, existing systems;
- able to reflect the farm or region;
- developed to reflect an integrated approach to the farm business;
- provides opportunities for training and development;
- ensures that direct compliance costs should be related to system expenses only;
- ensures that indirect compliance activities must be minimised and fully justified;
- prescribes industry best management practice to ensure direct economic benefits and good cost benefit; and
- able to add value.

7.0 The SAMsn Framework

The SAMsn Initiative has demonstrated that there is a key role for SMS to contribute to the future viability of agriculture and horticulture in New Zealand. The findings from this review will be incorporated into the development of a generic framework to assist industries, sectors, businesses or organisations develop a programme that is relevant to their needs, but encompassing principles that will assist the transferability of the programme between groups.

The framework will provide a set of principles that describe the broad parameters needed to achieve consistency and acceptance across the agriculture and horticulture sectors.

The objectives of the framework are to:

- encourage the development and adoption of SMS programmes by reducing the complexity, and providing pathways, for development;
- improve the efficiency of the development of sustainable management programmes and decrease the potential for duplication of initiatives;
- encourage linkages and promote consistent approaches between programmes;
- define the best management practices for the development and structure of programmes;
- foster the adoption of management practices that enhance farm and industry sustainability; and
- enable greater access to markets.

In March 2003 a workshop was convened of industry stakeholders to present the findings of the first stage of the project and to confirm the direction for the framework.

The workshop considered the range of:

- drivers;
- industry needs; and
- possible systems models.

An outcome of the workshop was the identification of the role of SAMsn to facilitate consistency across the agricultural and horticultural sectors by being:

- an information hub;
- a forum for generating new ideas;
- an information exchange; and
- a decision tool.

Based on these roles it was determined that the framework should reflect the provision of generic information and be directional, (by pointing in the direction of information) rather than providing it, and that it should also give direction by identifying appropriate tools, but not prescribing which ones should be used.

The workshop confirmed the need for the establishment of decision support processes to assist industries determine the character and scope, and possible systems models, and a framework of resources for the development of programmes.

Such a framework is intended to assist industries with:

- making decisions on programme development;
- ensuring the most appropriate development for their needs;
- ensuring that the most appropriate resources are used in any development, particularly common elements, such as codes of practice; and
- providing information about resources on sustainability issues.

The framework will be available in an electronic format in mid-2004 from the website: samsn.org.nz