QUALITY IMPROVEMENT STRATEGY 1991
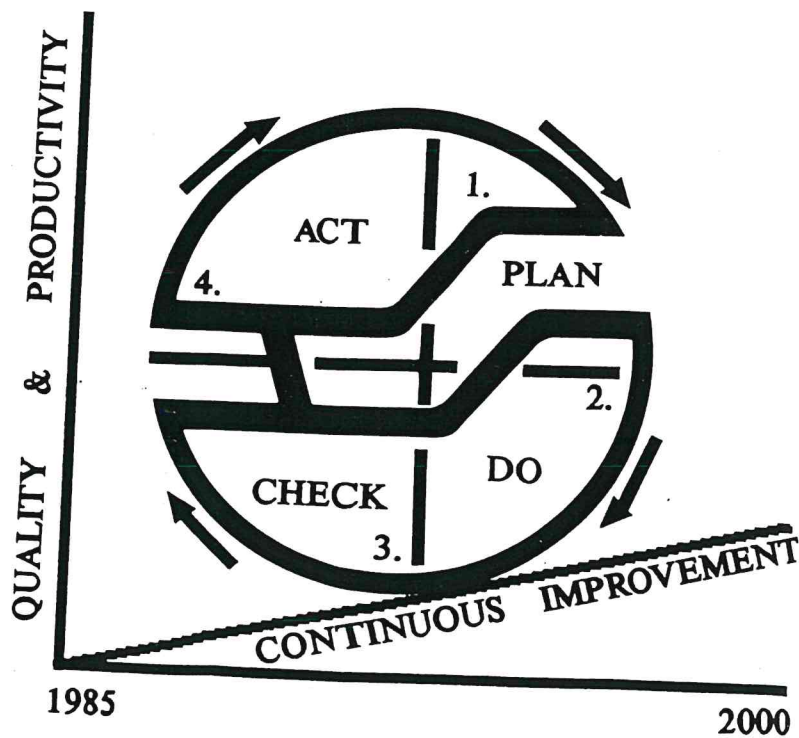
Furthering CALM's Quality and Productivity Improvement Programs

QUALITY IMPROVEMENT STRATEGY 1991

CONTENTS

1. ABSTRACT

It sounds like a fantasy: workers and managers cooperating to gather data, solve problems and improve work processes; and Government departments providing better services at lower costs. The answer is "Quality Improvement" in which interest is growing rapidly in Australia, both in the private and public sectors.

Quality Improvement (QI) is not a new management fad. Its philosophies and principles have been applied by Japanese managers for some thirty years now. Enterprises in Sweden and other western European countries have also had a long association with QI. CALM and the Forests Department have applied it in their successful safety program since the 1970s.

For Australian economy to develop, industrial award systems must be modernised and managers must adopt this new style of management. CALM's safety record stands out as an example to everyone. However, if we accept that "everything, everybody and everywhere can be improved" then there is a need for QI throughout CALM.

2. INTRODUCTION

This document outlines the PROCESS for QI in CALM. It is not intended to prescribe in detail how QI is to be implemented. Employees' and managers' participation in the process is vital and is precisely what QI is all about.

QI is not a quick fix. It is a never ending process towards improvement. A change in organisational patterns is required. There will be roadblocks to overcome. A lot of education in QI principles and use of tools will be required. Some managers and employees will have to change attitudes. Changing attitudes takes a lot of time. It is expected that total implementation of QI throughout CALM will take three to five years.

It is not envisaged that the whole organisation will be educated in QI all at once. It will be developed first in areas where managers exhibit enthusiasm and competence to embrace this new participative style of management.

Concept Of QI

QI is best summed up by this quotation:

> "The philosophy of QI is based on the principle that employees take more interest in their work when asked to contribute to decisions that affect them and that the people closest to a particular work area can best make decisions about their own work area."

QI is a philosophy about directly involving employees at all levels. It is not just asking employees for suggestions for someone else to analyse and implement. It is asking employees to contribute ideas, analyse problems and implement the solutions. It is essential that everyone knows the basic tools of quality control so that they have the means to do it.

A cooperative team effort will continually improve the effectiveness of all processes and service the needs of all clients.

At the Corporate Executive Meeting on 11 June 1990, Messrs Underwood, Edwards and Kelers proposed a systematic approach to improving the quality of overall Departmental operations and services.

It was "Agreed in principle that CALM should proceed with a staged development to further quality improvement".

.   Stage 1 is to inform staff what QI is, and the Department's intention to promote it.

.   The goal for 1991 is to train district, regional and branch managers in the principles of QI.

Stage 1 has been almost completed. All forest district employees and staff have been exposed to a brief introduction to QI. Branch and regional managers also have heard this brief introductory presentation on QI. Discussion on QI with AWU and CSA has taken place.

Some resistance, especially from middle level managers has occurred This has occurred elsewhere in the world when QI is introduced. This is because people perceive that a highly trained and multiskilled workforce has little need for middle and lower level managers. This is a wrong perception. It is the role and style of management that must change. Managers must move from actions as an inspector, a director or controller to one of being a coach, a teacher and a facilitator.

The October 1990 Managers' Conference reinforced the need for CALM to focus on quality improvement and productivity. The Minister, Executive Director and General Manager reminded all present at the conference that:

"Tough economic times are upon us."

Cost saving and improvement in productivity is vital. Before we start "cutting" programs we must ensure that productivity is maximised, errors and waste are minimised throughout the organisations.

"CALM's mission and complexities will lead to many politically sensitive issues."

Even apparently small "errors or failures" can be politically very damaging. Errors can only be eliminated by the application of QI philosophies and principles.

"Employee participation and consultation is essential."

There is a lot of human potential that is not being maximised. People show more interest in work when asked to contribute ideas and to decisions affecting them.

Modernising and restructuring awards is a vital national mission. The success of this is dependent on good consultation and employee participation processes being in place. QI is a mechanism that shows the way to this industrial democracy process.

"To avoid unnecessary duplication and waste, teamwork is vital."

The many branch, section, district and regional functions are more closely integrated through the application of QI. Focus should not be on necessarily flattening the hierarchical organisation but on cross-functional management; ie. following the functions and processes throughout the organisation and continually improving those.

The extract from the General Manager's address at the 1990 Managers' Conference sets the stage for the introduction of the Quality and Productivity Strategy.

> "Almost anyone can be a good leader/manager in good times. The tough times are our greatest test. In this paper today I want to talk a little about how we managers must perform in CALM's tough times.....especially over the next month or so, and then over the next couple of years. I also want to remind you that very often very positive things emerge from tough times. We are forced to think harder and act more cooperatively - these are outcomes to look forward to."

The current climate in CALM is just right to take on this new participative style of management. Everybody in Australia is in tough economic times. Productivity improvements are essential. The award restructuring process has already demonstrated the success and need for consultation and employee participation. Outstanding success has been achieved in the safety program, partly due to the process embracing employee consultation and participation at District committee level. The letting of logging contracts in 1989 according to the Timber Strategy has been a major change requiring effective cross-functional management and the project team approach to problem solving and process improvement.

QI is often referred to elsewhere as Total Quality Management (TQM) or Total Quality Control (TQC) or Quality Management (QM). Whatever the name, the principles and the philosophy are the same. It is precisely what good managers should have been doing all along, therefore the cost of introducing QI programs in the long term has no relevance.

There is a voluminous literature on Quality. Many of the concepts have emanated principally from one source - E Edwards Deming. Where possible the source of material has been acknowledged. This document has been prepared and the strategies designed with CALM needs in mind. The quality concepts used have been incorporated and related to existing CALM processes and systems.

3.   CALM'S PRODUCTIVITY PROGRAMS - 1991

Because there are a number of productivity improvement programs already in existence QI philosophy and principles can be looked upon as the catalyst. (With QI it is all coming together.) Therefore we should refer to this strategy as quality and productivity (QAP).

3.1   Managing in Tough Times:

A paper presented by the General Manager, R Underwood, at the 1990 Managers' conference set the scene that managers have to be resourceful and maximise the effectiveness of available resources. On the one hand there are diminishing resources; on the other hand public expectations of CALM are on the increase. Primarily we can do any of the following:

a)   Stop functions, activities and tasks
b)   Increase revenue-making enterprises
c)   Maximise external funding
d)   Improve productivity or maximise the effectiveness of our existing resources.

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                    ┌─────────────────────────┐
                    │  MANAGING IN TOUGH TIMES │
                    └─────────────────────────┘
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| STOP FUNCTIONS ACTIVITIES TASKS | MAXIMISE EXTERNAL FUNDING (RECOUPS, ETC.) | INCREASE REVENUE |

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                    ┌─────────────────────────┐
                    │   IMPROVE PRODUCTIVITY   │
                    └─────────────────────────┘
                            (REDUCE COSTS)
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| ELIMINATE WASTE AND DUPLICATION | IMPROVE OR MODIFY METHOD OR PROCESS | ELIMINATE ERROR |
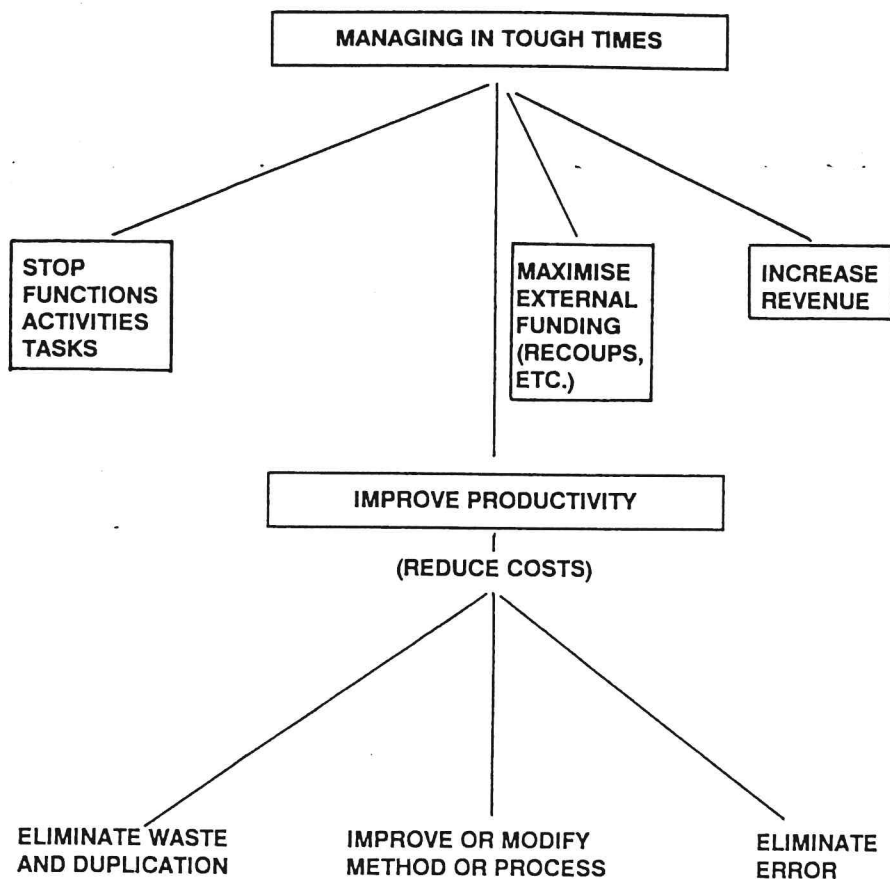
3.2 Productivity and Priority Review Committee

Corporate Executive recognised that a rational method of targeting of program areas to achieve reductions was essential, and established a Productivity and Priority Review Committee which reported in December 1990.

This review group is also to examine functions and programs on a longer term so that priorities can be addressed in a planned way. Other solutions will be explored before we resort to stopping functions. In CALM, the tightening up process has occurred for several years now.

3.3 Structural Efficiency Principle and Award Restructuring

In August 1988 the Australian Conciliation and Arbitration Commission made an historic decision. It established a new wages system that is centred on a Structural Efficiency Principle. The main thrust of this is to overhaul each industrial award and modernise it.

The restructuring process deals with: revision of job classifications, multiskilling, provision of new career paths and improved job satisfaction.

Restructuring provides the opportunity to introduce flexible forms of work organisation. More flexible working patterns and the removal of restrictive work practices are being considered.

The restructuring process is complex and time-consuming, but when instituted, will produce a more flexible, productive and satisfied workforce.

In 1989 the AWU and CALM commenced the restructuring process of the AWU Award. Consultative processes have been set up. Enterprise and workplace committees are working towards the objective of producing a modernised award.

In 1989 the restructuring of the Public Service Award reached the stage where job classifications were revised and broadbanded. Negotiations are still in progress to incorporate other special conditions specified in the Forest Act Field Staff Agreement.

For productivity increases to be gained out of this process, employee participation and consultation is vital. To maximise our effectiveness all managers need to adopt a participatory style of management as advocated by QI.

3.4 Improving Cost Efficiency in CALM by Involvement of Logging Contractors in Coupe Management and other Silvicultural Works

On 9 December 1987 the Timber Strategy Plan was adopted by the Lands and Forests Commission. One of the principles stated in the Timber Strategy sets the stage for the development of logging contracts.

Principle No 4 states "the cost of regenerating, establishing and managing both native forests used for timber production and exotic pine plantations will be recouped from the sale of harvested logs". The logging contracts were set up in such a way to advance this objective and make its achievement possible.

During 1989 fourteen logging contracts were let. Twelve of these contracts increased responsibility to CALM contractors.

Schedule 3 of these contracts states the specifications for supply of hardwood sawlogs.

Section 6 of Schedule 3 lists the tasks the contractor "is obliged to do" in coupe management work. The managing of boundaries and coupe certification is now the responsibility of the contractor. Also, coupe certification is now the responsibility of the contractor. Also, in Karri coupes, scrub rolling for regeneration and perimeter preparation for regeneration burning is now covered in the logging contract rates. The contractor is also obliged to rehabilitate and plant landings and snig tracks.

Section 5 of Schedule 3 "Cutting Prescriptions", describes Jarrah Silvicultural Improvement (JSI) and Karri regeneration work which the contractor "may be required to do".

The aim is to minimise silvicultural work carried out using borrowed funds. In the last royalty review, CALM customers were alerted that the in-forest component may have to be increased to cover this extra work. The implementation of this section has yet to commence.
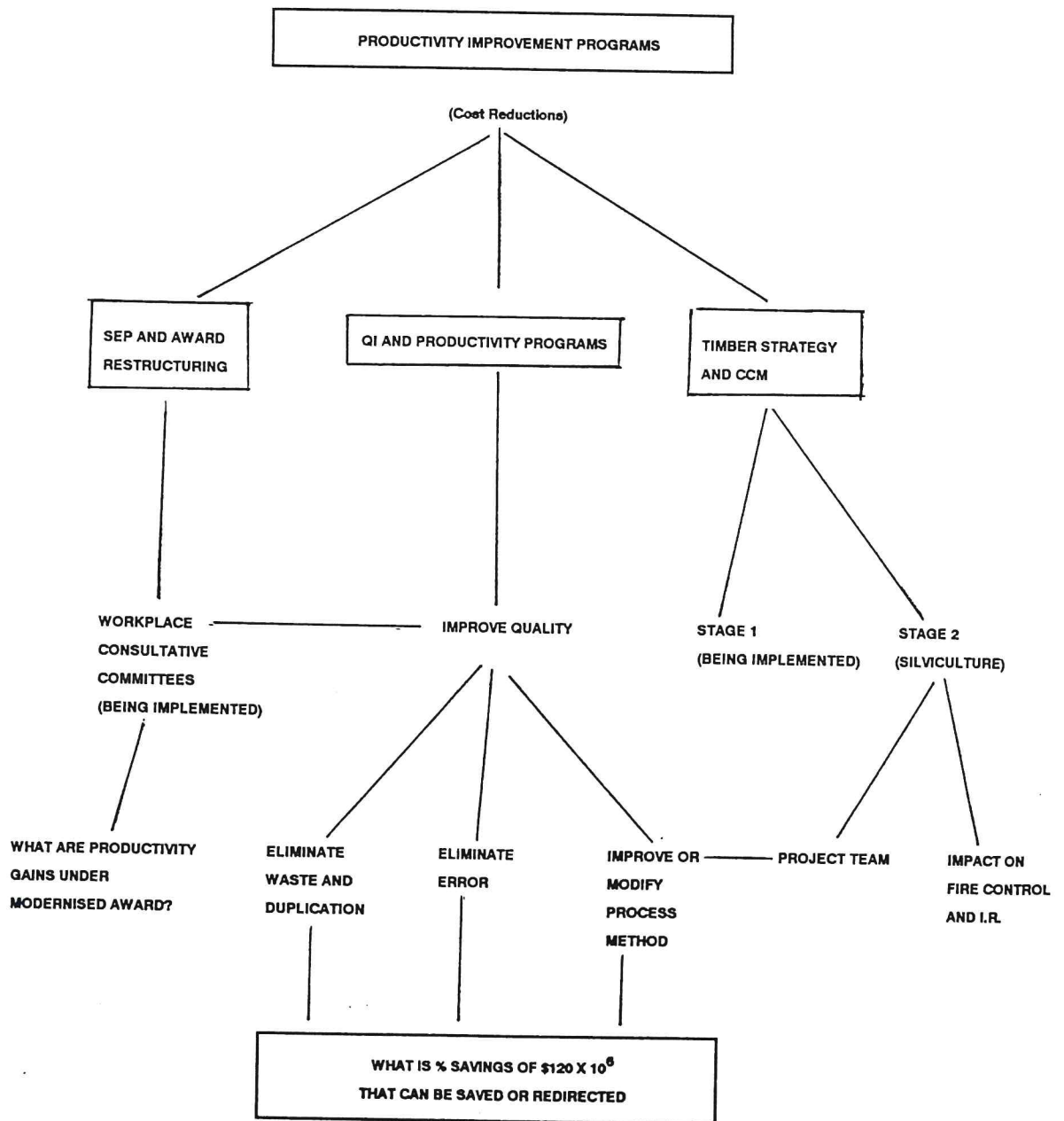
The potential impact on CALM personnel and fire control is significant. Close examination is required before implementation.

The desired result is a balanced, common sense approach that best meets the aspirations of all those involved, ie. AWU; CSA; Timber Workers' Union; Timber Production Branch; Fire Control Branch; contractors; regions; the customers of the produce and the Department's quest to reduce capital funds expenditure.

A project team is to be set up to examine this cross-functional problem and come up with a solution. The objective is to continue successful regeneration and subsequent growth of the forest following logging, while at the same time reducing capital funds expenditure, but without seriously affecting essential fire control requirements and industrial relations.

3.5 Productivity Improvement Programs

CALM's productivity improvement programs are summarised below. It is essential that these programs are coordinated and fit into overall Departmental aims without duplication.

PRODUCTIVITY IMPROVEMENT PROGRAMS

(Cost Reductions)

SEP AND AWARD RESTRUCTURING

QI AND PRODUCTIVITY PROGRAMS

TIMBER STRATEGY AND CCM

WORKPLACE CONSULTATIVE COMMITTEES (BEING IMPLEMENTED)

IMPROVE QUALITY

STAGE 1 (BEING IMPLEMENTED)

STAGE 2 (SILVICULTURE)

WHAT ARE PRODUCTIVITY GAINS UNDER MODERNISED AWARD?

ELIMINATE WASTE AND DUPLICATION

ELIMINATE ERROR

IMPROVE OR MODIFY PROCESS METHOD

PROJECT TEAM

IMPACT ON FIRE CONTROL AND I.R.

WHAT IS % SAVINGS OF 120×10^6 THAT CAN BE SAVED OR REDIRECTED

3.6 1990 Manager's Conference

A brainstorming exercise produced many ideas for change and productivity improvement. Other ideas are coming forward from workplace committees and unions. The strategy is designed to incorporate all the good ideas into Quality Improvement Training so as to produce a coherent and coordinated program. Some of the productivity improvement suggestions are incorporated in the following cause and effect diagram.
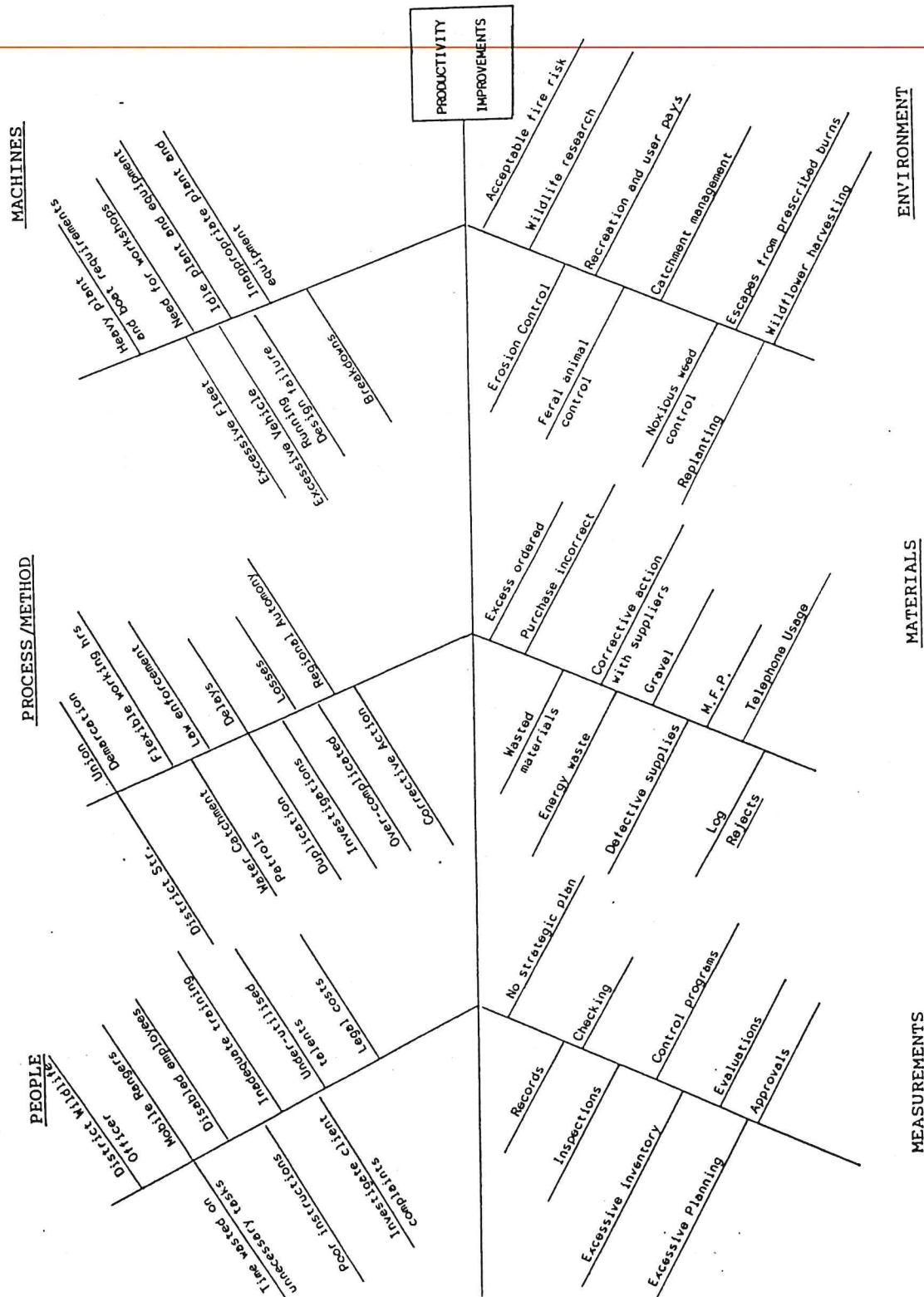
4. QUALITY IMPROVEMENT TOWARDS 2000

(4.1 and 4.2 adapted from a handout at TAIDA lecture).

4.1 What is QI?

QI is an approach to work - a management philosophy and corporate culture that is applicable to any organisation.

It requires commitment at all levels of management, careful planning, the willingness to provide whatever resources are necessary, patience and, for most Australian organisations, a change in the attitudes of managers.

The philosophy is that if you improve the quality of the things you make and the things you do, you will also increase productivity, reduce costs, improve the products, processes and effectiveness of the services you offer.

QI is fundamentally about processes - for it is by the constant analysis, control and improvement of processes that we remove the waste and error that reduce productivity and increase costs. Everyone is constantly involved in processes. Hence QI applies to the whole organisation.

Understanding the processes of an organisation means understanding the nature of the variation that is inevitably a part of them, and the penalties for tampering, without in-depth knowledge of the causes of that variation.

Management is responsible for designing and maintaining the systems or processes of an organisation. So management ultimately bears the bulk of the responsibility for the quality of performance of the activities of the enterprise.

However everyone shares a responsibility for quality and for reducing the incidence of waste and error. It involves every member of an organisation, from the top executive down, in identifying, analysing and realising opportunities for improved performance.

4.2 Principles of QI

Management by Policy Deployment

- QI is not merely a special additional responsibility. It is the way we manage the organisation.

- A long-term policy for the organisation should be communicated to every employee. To focus effort, CALM's policy should be broken down into ever smaller detail so that each employee has objectives that are in keeping with the overall policy.

- As policy is developed, communicated and interpreted throughout the organisation, indicators should be established at all key points to allow continuous and comprehensive monitoring of corporate performance.

The New Definition of Quality

.   Aim for good quality - not necessarily the highest quality, but quality suited to the customer that is dependable, uniform and provided at low cost.

.   If we work to achieve this good quality we will raise productivity and reduce costs.

.   Quality cannot be "inspected in". It must be "built in" in every process.

Management's Responsibility

.   Management must assume the responsibility for QI.

.   Only 15% of the problems in a cost centre or office are due to a particular person, a particular machine or a particular local situation. 85% of problems are due to the system.

.   It follows that the biggest gains will come from identifying and resolving the problems of the system.

The Importance of the Customer (Internal and External

.   To obtain quality suited to the customer we must first know what our customer wants.

.   We must aim to get our product 'right' in our customer's hands every time.

.   The cycle of development of products and services is a never-ending cycle that improves quality, identifies opportunities for innovation, and reduces costs.

People and Supervision

.   People are an asset, not a cost, so:

- Improve job training
- Improve their technical skills
- Lift process and product knowledge
- Train staff in new skills to meet market demands
- Introduce TQC and statistical training

.   Drive out fear - of losing jobs, of the boss, of being found to be incompetent.

.   Supervision must be designed to help people do a better job.

.   Supervision must focus on quality not quantity.

.   Review slogans, exhortations, and announcements that emphasise employees' responsibility without due regard for the crucial role of management, tying reward and recognition to the achievement of targets and quotas without knowledge of the limitations of the process. Replace those slogans and exhortations with supervision,

training and management involvement designed to help people do their job more effectively.

. Foster the attitude "We - The Company, Them - The Defects".

. Break down barriers between departments and allow people to work in teams on the cross-functional processes of the Department.

. As quality becomes "built in" the supervisory strata will be reduced, freeing skilled supervisors and technical staff for advanced work and future product/service planning.

Measurement and the Control of Processes

. Waste and error account for as much as 30% of the cost of goods and services. Reducing waste and error significantly reduces costs and improves productivity.

. What you cannot measure you cannot control. Statistical process control is an important QI tool.

. QI is about controlling processes and systems, and processes can be identified and dealt with.

4.3   **CALM's Safety Program as a Role Model of QI Principles Being Applied**

Many of CALM's successful processes do use QI principles but none as closely as the safety program. We are fortunate in this regard because we can use these proved systems as teaching aids. In the CALM safety program:

. There is a continuous improvement of the system and processes. Work practices and hazards are being examined by safety committees and improved continuously.

. There is focus on client needs. The program is designed to prevent hurt and injury to our employees. It is also closely focused on Departmental needs to prevent accidents (waste and error).

. There is a general commitment to safety all the way from the Executive Director to the employees. Top management commitment is a vital factor in the success of this program.

. There is employee participation. Employees are empowered to come up with ideas and corrective actions at their workplace committees. It was the first field in which this took place in a formal manner. (Recently workplace consultative committees have been formed to deal with award restructuring.)

. Results are measured. Safety statistics are used to form the basis of decision making or investigating causes of error, eg. declaration of compulsory safety equipment, zones, etc.

- Good quality management clearly results in fewer accidents and the reduction of waste, error, injury and pain. There is a productivity gain in preventing accidents. CALM's savings in 1989/90 for workers' compensation premiums alone was $632,500 on the previous year.

- Achievements are recognised through safety awards and presentations.

When there is poor safety performance in Districts invariably the cause is breakdown of commitment to safety by management and employees, eg.

- No one is "driving" the safety system and process;.

- Employees feel there exists a wall of "them" and "us".

There are many examples of where poor safety performances have been reversed by the application of QI principles.

4.4 Philosophies Leading to QI

- The competitive edge in all organisations is vital for survival.

- Waste erodes the competitive edge by reducing productivity and progress. Waste should be eliminated.

- Failures are the single source of waste.

- The ultimate source of all failures must trace back to a human error. People are the only ones who plan things, make things and use things. Things cannot fail as they can only do what they are made to do or asked to do. Things merely execute the failure.

- All people are basically trying to do a good job. Nobody is guilty of a failure. The only guilt lies with those who conceal their failures and so perpetuate their existence. Failure is not a punishable offence and must not be feared.

- All failures can be avoided, prevented or controlled.

- Everything, everybody and everywhere can be improved.

- The solution to everything is in the minds and motivation of the people. The more minds we use the better chance of discovering the solution. The more people are motivated the more improved are the chances of success. The more educated the people, the greater the scope and depth of access to knowledge.

- Organised management method minimises human error and oversight.

- The success in solving all problems depends on factual, accurate and reliable data.

4.5 Employee Worth

The philosophy that almost "Everybody wants to do a good job" and that it is the systems that prevent us from doing so, is something that QI does

address. Not only do managers need to modernise award systems but also their management practices. Successful organisations maximise their human resource potential. Employee participation in improving work practices does lead to productivity improvements, eg. employees participating in CALM safety committees are largely the reason for our workers' compensation payments this year being $632,579 less than last year. How much more is actually saved by preventing accidents, eg. damage to equipment, vehicles, lost time, etc.?

The table below illustrates how Japan is reaping the rewards of employee participation.

COMPARISON OF AMERICAN AND JAPANESE SUGGESTION SYSTEMS 1987 - (from the 1987 NASS and JHRA Statistical Reports)		
	USA	JAPAN
Number of reporting organisations	272	620
Number of eligible employees	8,043,242	2,044,466
Total suggestions received	1,023,421	50,537,412
Number of suggestions per 100 eligible employees	13	2472
Participation rate	8%	66.6%
Adoption rate	24%	80.5%
Average award per adoption	$604.72	$3.23
Average net savings per adoption	$ 8,075	$137.93
Net savings per 100 eligible employees	$24,891	$274,475

4.6 Measurement and Basic Tools for Decision Making
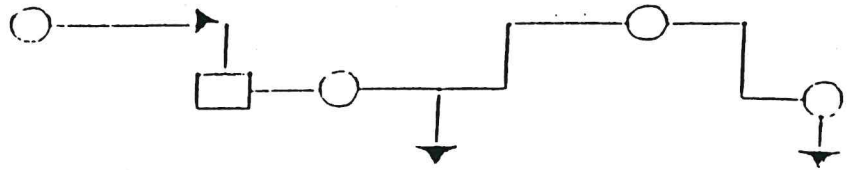
Measurements and statistical data are necessary so we can -

a) Make decisions that are based on fact and not hearsay or gut feelings

b) Determine waste and error and continuously improve the process or system.
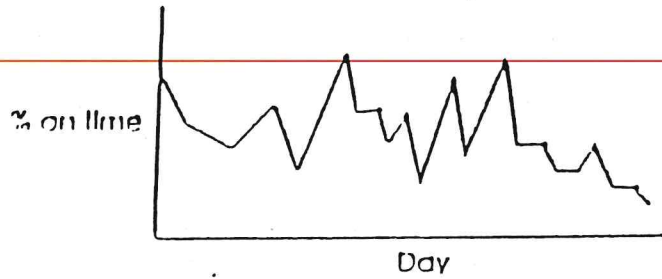
Statistical data is used in CALM's safety program to -

. record performance
. identify areas of hazard
. need to modify work practices

The Basic Tools of Quality Improvement

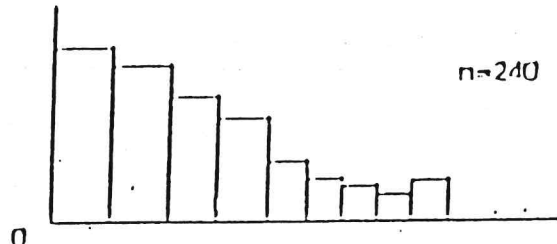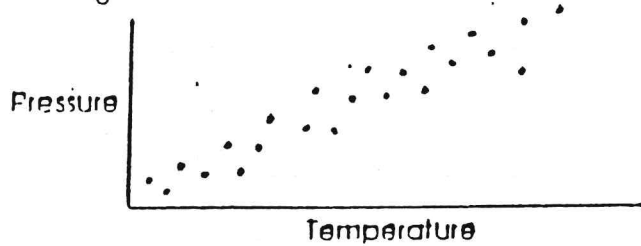Flow Chart

Run Chart

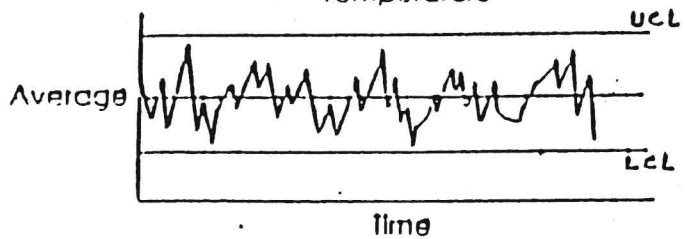% on time
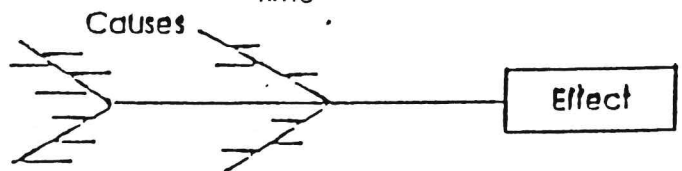
Day

Pareto Chart

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Scatter Diagram

Pressure

Temperature

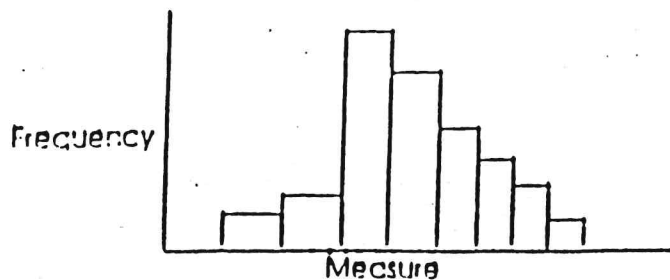Control Chart

UCL

Average

LCL

Time

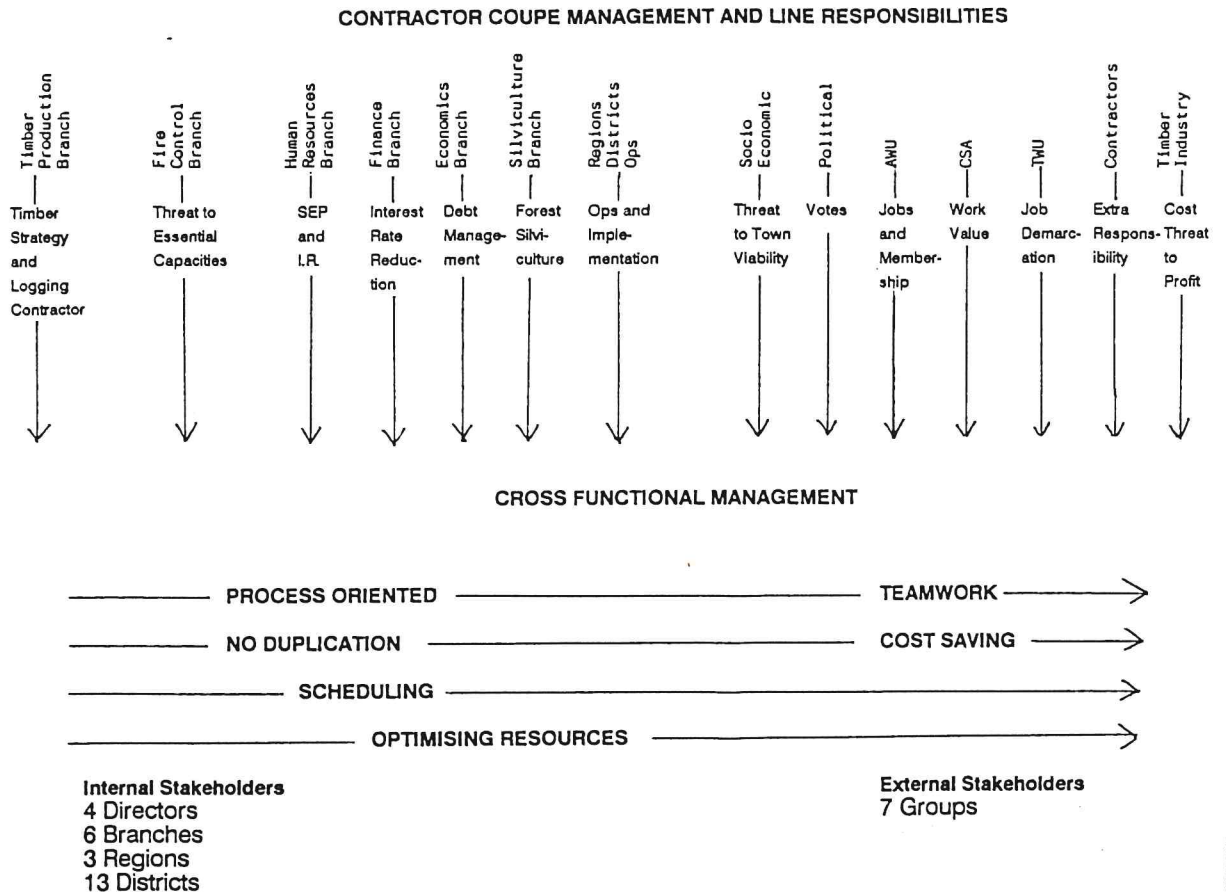Cause and Effect Diagram

Causes

Effect

Histograms

Frequency

Measure

Education is required to acquire the necessary skills so that productivity improvement and group effectiveness can be maximised.

4.7 Teamwork

The need for cross-functional management is well illustrated in diagram below shows the stakeholders involved in the Logging Contractor Coupe Management process. It is not too difficult to imagine the problems and duplication that can be created if one of the stakeholders only assumes a line functional role, ie. the situation can arise where each stakeholder assumes the philosophy that in his/her case the end justifies the means.

CONTRACTOR COUPE MANAGEMENT AND LINE RESPONSIBILITIES

Timber Production Branch	Fire Control Branch	Human Resources Branch	Finance Branch	Economics Branch	Silviculture Branch	Regions Districts Ops	Socio Economic	Political	AWU	CSA	TWU	Contractors	Timber Industry
Timber Strategy and Logging Contractor	Threat to Essential Capacities	SEP and I.R.	Interest Rate Reduction	Debt Manage-ment	Forest Silvi-culture	Ops and Imple-mentation	Threat to Town Viability	Votes	Jobs and Member-ship	Work Value	Job Demarc-ation	Extra Respons-ibility	Cost Threat to Profit

CROSS FUNCTIONAL MANAGEMENT

PROCESS ORIENTED —————————— TEAMWORK ———→

NO DUPLICATION —————————— COST SAVING ———→

SCHEDULING —————————————————→

OPTIMISING RESOURCES —————————————→

Internal Stakeholders
4 Directors
6 Branches
3 Regions
13 Districts

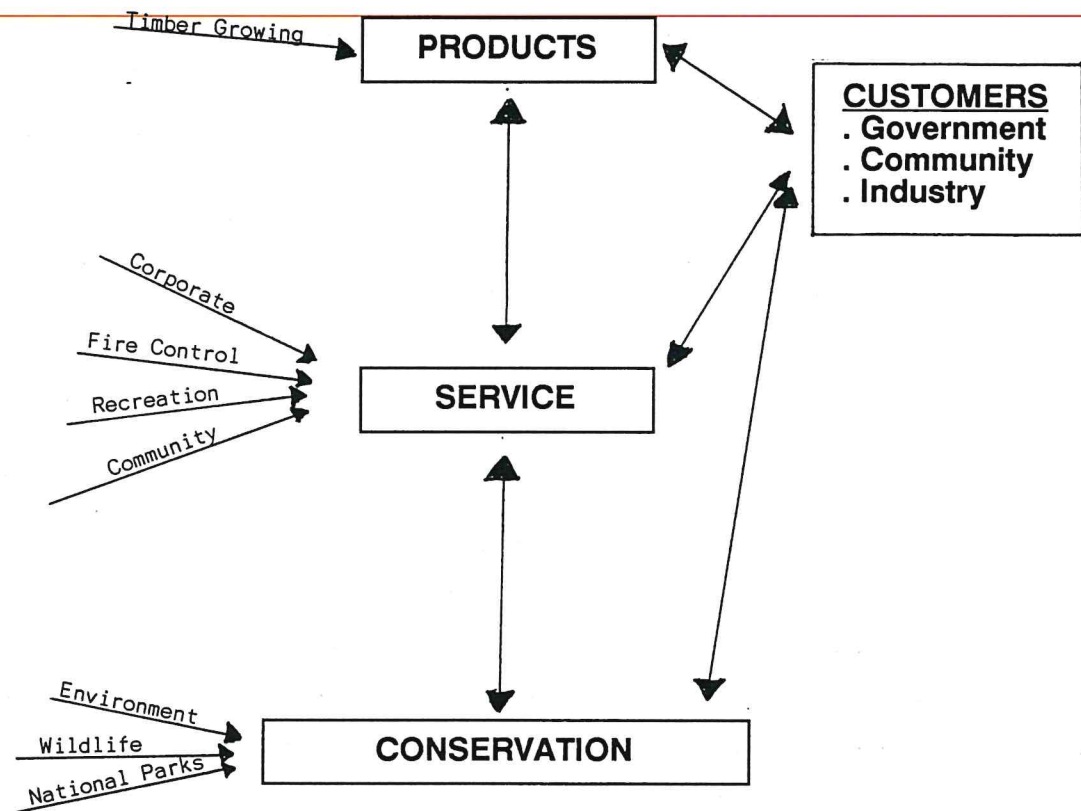**External Stakeholders**
7 Groups

In this complex situation cross-functional management can be achieved by carefully structuring a project team that investigates all stakeholders' needs and problems and comes up with a satisfactory solution.

A new concept of an organisation

In the old style hierarchical organisation barriers can be built up because each branch and section can be looking after their process. This can lead to waste of resources, duplication and empire building.

The organisation should be viewed as process - a matrix of interlocking processes. Each person in the organisation is a part of the process. It would be wrong to make reorganisational changes on the basis that CALM is a hierarchical structure. In reality it is probably somewhere in between the two models. (If we take the theoretical view only then it is possible to have as many as ten hierarchical steps from the Executive Director to the employee.)

THE NEW WAY TO VIEW AN ORGANISATION

4.8   Customers' (Clients, Stakeholders) Needs

Internal Customers
We all have internal customers - they are the processes we supply. It is as important to meet the needs of the internal customer as it is those of the external customer. In meeting the needs of the internal customer we ensure that the final product or service to the external customer is defect free and meets customer needs.

In organisations where QI has not been introduced, the tendency is for internal customers to accept what they are given without question. We need to change that by encouraging them to specify exactly what they need from us in frank and open discussion. Once we have this information, it opens up positive possibilities for us and our customers.

External Customers
In the definition of quality one of the aims is to please the customer. Ultimately it is the external customer that pays our wages. In the broad sense our external customers can be viewed as the Government (and its agencies), the community and the timber industry.

Determining Customer Needs
Here are some questions to consider in determining your and the Department's customer needs:

- Who are the customers?
- What are their needs?
- What do the customers think of the product or service?
- What problems are customers experiencing with the products or services?
- What improvements would customers like to see in the products or services?
- How well do customers know how to use our services?
- Is the customer education program reaching the customer? If not, why not?

Customer needs change and therefore contact with the customer must be on a continual basis to ensure that our products and services meet the changing needs of the market. Customer needs cannot be determined simply by examining complaints received. Customers who complain can only constitute a small biased element.

From time to time we will come across customers (both internal and external) who will make unreasonable requests which cannot be satisfied economically or in terms of performance. In these circumstances an attempt should be made to resolve issues by discussion. The aim should be to meet the requirements of _hard_, _demanding_, _but reasonable_ customers.

Customer Driven Organisation VS a Regulatory One
The effectiveness of CALM's fire prevention program is a perfect example where prevention is better than the cure. We should apply these principles elsewhere, eg. law enforcement.

COMPLIANCE REGULATION	CUSTOMER DRIVEN SERVICE
SERVICE OUT	CUSTOMER IN
Law Enforcers ————————	Peacekeepers
Fire Suppression ————————	Fire Prevention
Zoning Regulation ————————	Environmental Protection Support Facilitation Consultation
Fix Broken Vehicles ————————	Preventative Maintenance
Provide Legal Directives ————————	Provide Legal Opinions to Management
Fiscal Control ————————	Financial Support

An enforcement driven organisation is bureaucratic. It relies on policing, reporting, apprehending and prosecuting - all wasteful and negative processes. In reality we do need some enforcement but it should not be the driving force. The driving force should be to serve customer needs through education, information, etc.

5. **QUALITY IMPROVEMENT (QI) IMPLEMENTATION STRATEGIES**
   (CALM's QI Implementation Plan - Attachment 1)

   5.1   **Top Management Commitment**

   The success of our safety program is due to a large extent to the evident, consistent and sustained commitment by top management. Similar commitment is necessary for the QAP programs to succeed.
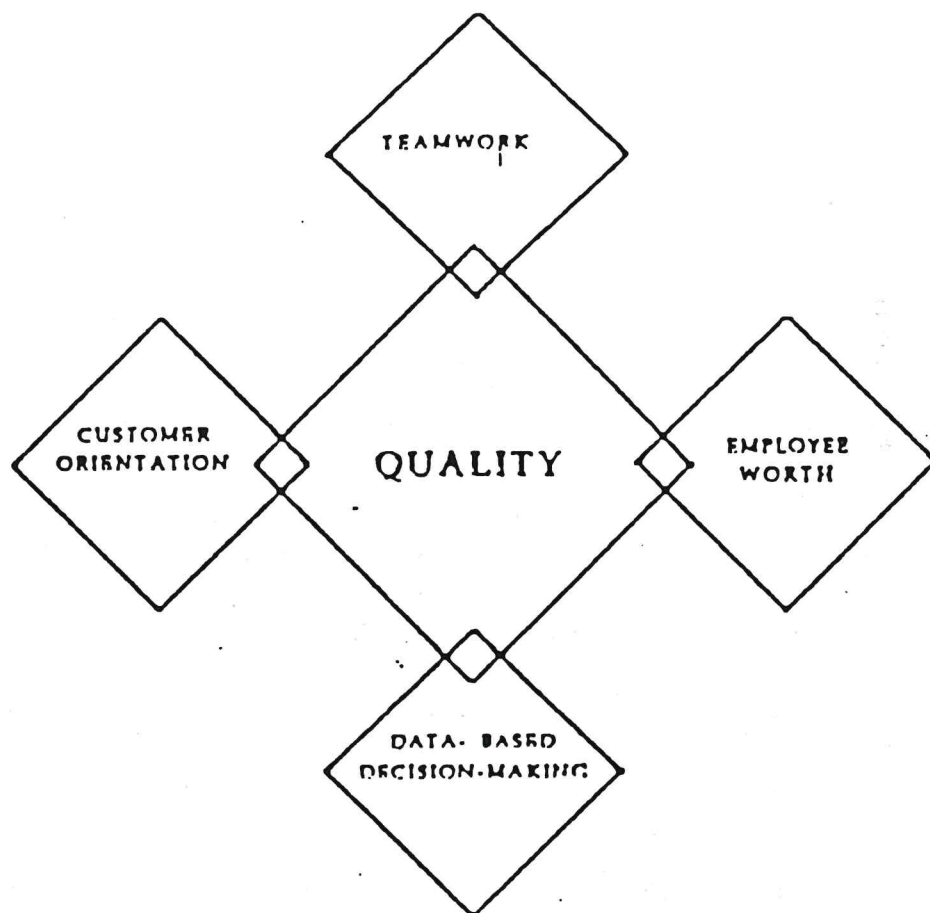
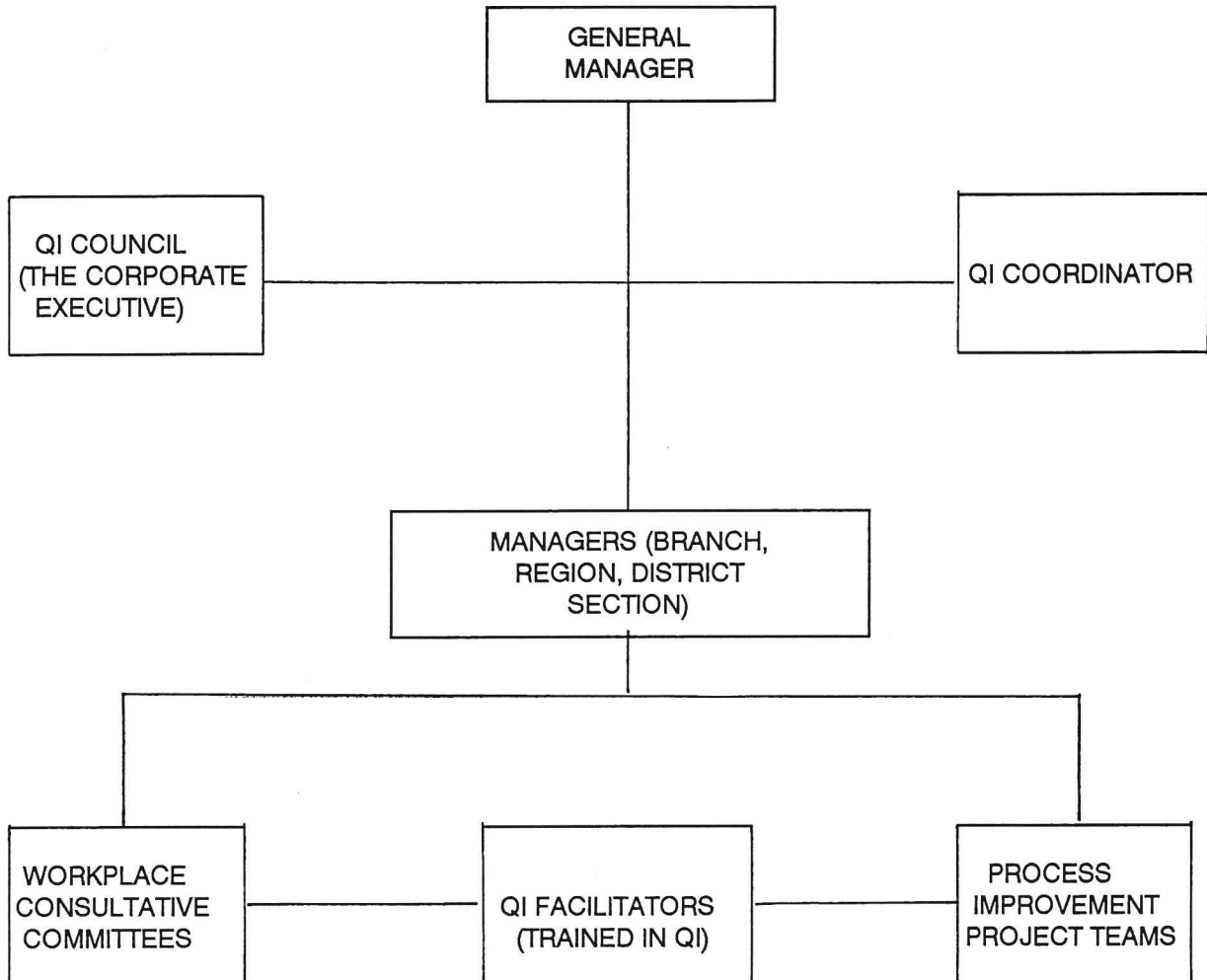
QI Mission

The mission of the QI program is to cultivate and sustain with CALM the constant and wide-spread practice of involving employees from all levels of the organisation in a meaningful and cooperative team effort which is based on a critical analysis of relevant data, including client input, for the purpose of continually improving the efficiency and cost effectiveness of all services.

5.2 QI Structures and Responsibilities

Quality is not a separate function; nor is there a separate management structure. It is everybody's responsibility and part of the existing CALM management structure. However, the following QI responsibilities are identified:

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                    ┌──────────────┐
                    │   GENERAL    │
                    │   MANAGER    │
                    └──────┬───────┘
                           │
  ┌──────────────┐         │         ┌──────────────┐
  │  QI COUNCIL  │         │         │ QI COORDINATOR│
  │(THE CORPORATE├─────────┼─────────┤              │
  │  EXECUTIVE)  │         │         │              │
  └──────────────┘         │         └──────────────┘
                           │
                  ┌────────┴─────────┐
                  │ MANAGERS (BRANCH,│
                  │ REGION, DISTRICT │
                  │    SECTION)      │
                  └────────┬─────────┘
                           │
      ┌────────────────────┼────────────────────┐
┌──────────────┐   ┌──────────────┐      ┌──────────────┐
│  WORKPLACE   │   │QI FACILITATORS│      │   PROCESS    │
│ CONSULTATIVE ├───┤ (TRAINED IN QI├──────┤ IMPROVEMENT  │
│  COMMITTEES  │   │              │      │PROJECT TEAMS │
└──────────────┘   └──────────────┘      └──────────────┘
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a)   Role of QI Coordinator: Experience has shown that the QI coordinating function should begin modestly and evolve modestly, just ahead of any planned expansion. It should never become a quality empire. In the beginning it will be one person, an implementation coordinator, reporting to the General Manager.

Above all, this coordinating function must never be seen as a unit to which is assigned the responsibility for quality transformation. That responsibility belongs to management. Rather the coordinator is simply a resource, providing support services to managers.

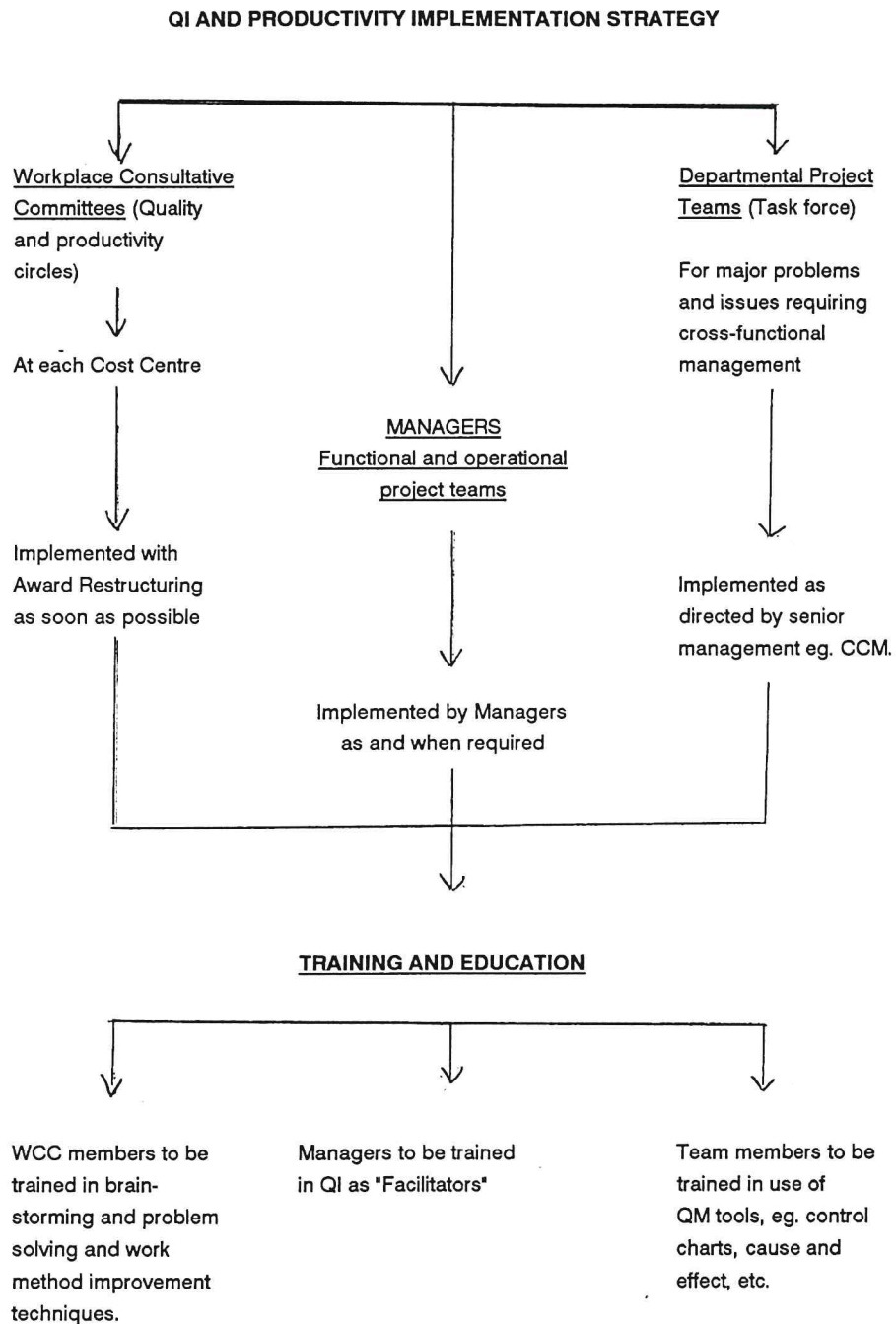Specific tasks for the QI coordinator in CALM are:

1. Develop and review QI strategies for CALM.

2. Develop and review implementation plans.

3. Keep sight of the "big picture".

4. Coordinate and integrate with other related programs, eg. award restructuring, cost reduction, employment strategy, consultation process, human resource management, etc.

5. Advise and guide managers.

6. Provide technical assistance to project leaders.

7. Arrange QI training programs.

8. record and disseminate project information.

9. Induct new managers in QI.

10. Arrange recognition and publicity for successful project team.

11. Maintain QI resources and library.

12. Keep pace with technology in field.

13. Network with other QI coordinators and groups.

14. Call "timeout" on senior staff to assist them to provide quality leadership.

b) Role of CALM's QI Council (Corporate Executive):

. Deploy major Departmental problems requiring cross-functional management to project teams.

. Review strategies.

. Review implementation and progress.

. Give recognition to project teams (teams to present results to Corporate Executive).

c) Facilitators: Each QI project has a nominated manager as the facilitator to the project team. The role of the facilitator is to advise and assist the process owner and the QI team where necessary. The facilitator need not attend all team meetings but is responsible for ensuring that the project does not lose momentum or sight of the original objective. The facilitator should be competent in the QI philosophy and the use of its tools.

d)   CALM's employee involvement process in QI program is summarised below:

QI AND PRODUCTIVITY IMPLEMENTATION STRATEGY

Workplace Consultative Committees (Quality and productivity circles)

At each Cost Centre

Implemented with Award Restructuring as soon as possible

MANAGERS
Functional and operational project teams

Implemented by Managers as and when required

Departmental Project Teams (Task force)

For major problems and issues requiring cross-functional management

Implemented as directed by senior management eg. CCM.

TRAINING AND EDUCATION

WCC members to be trained in brain-storming and problem solving and work method improvement techniques.

Managers to be trained in QI as "Facilitators"

Team members to be trained in use of QM tools, eg. control charts, cause and effect, etc.

Process Improvement Project Teams are responsible for the detailed examination of the process and implementation of process improvements. Senior CALM management will select major Departmental issues, problems or processes that need investigating. A project team will be formed for this cross-functional management process. Otherwise, managers can structure their own project teams to deal with their specific functional or operational process or problem.
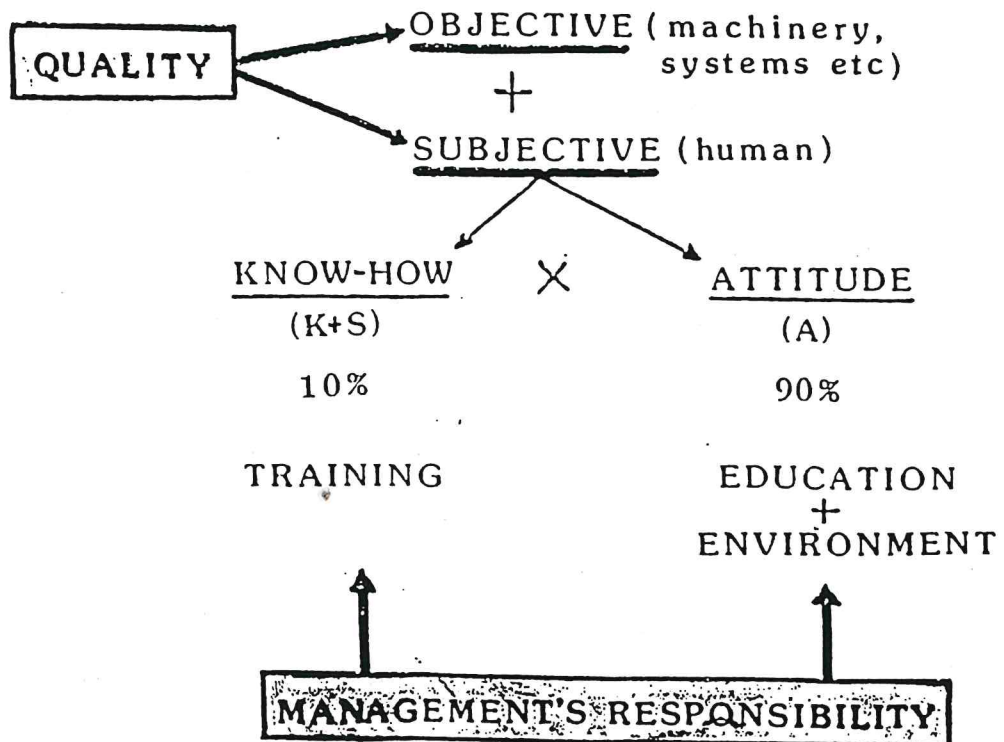
e) Workplace consultative committees (or productivity improvement groups) are to be developed in each cost centre. It is important that the members of these committees are trained in -

- committee procedure
- consultation procedure
- brainstorming, problem solving techniques.

These cost centre committees will be looking at productivity improvements in their work area.

Achieving quality is dependent on the attitude of staff and employees. QI philosophy says that this accounts for 90% (whilst knowledge and skills account for 10%) of achieved quality. Attitude can only be changed by education and the right environment.

ACHIEVING QUALITY.......

QUALITY → OBJECTIVE (machinery, systems etc)
+
→ SUBJECTIVE (human)

KNOW-HOW (K+S) × ATTITUDE (A)

10%   90%

TRAINING   EDUCATION + ENVIRONMENT

↑   ↑

MANAGEMENT'S RESPONSIBILITY

5.3 Education and Training

a) **Basic Orientation to Quality Management**

Most employees and staff have been exposed to a brief introductory session on QI.

This session included the history of QI, its philosophies and principles.

b)   Quality Leadership Training

Training of leaders will be presented by an external consultant. The Corporate Executive and managers (branch, regional and district) have been exposed to two one-day QI education seminars.

Because of CALM's decentralisation and vast geographic distribution, sufficient people should be educated in QI to facilitator level. Not only will those people have the scientific skills in QI to facilitate, but they will also take on training and leadership roles.

c)   Facilitators (Technical Advisers)

An internal network of staff capable of providing consultation, technical assistance and training in QI is necessary for the program to succeed. The individuals selected for these roles should be capable of acquiring the knowledge and skills required to use these basic tools of scientific approach and training others.

d)   "Just in Time" Training

In time, everyone in the organisation should learn how to work in groups, how to plan a change, how to gather data, the basic scientific tools, how to determine the source of a problem and how to implement solutions. These skills should be taught to employees as they need them. This is called "Just in Time Training".

Mass training of employees and staff can be a waste of time and resources if the knowledge is not going to be used soon. People forget quickly, particularly if the training is not followed up by hands-on experience in actual work situations.

In time it is planned that the facilitators will be the main source of training employees throughout the organisation.

e)   Workplace Consultative Committees

Consultative and productivity improvement groups are being set up in CALM.

.   The AWU award restructuring process has already provided experience for employees on these committees.

.   The district safety committees have functioned for many years and are an excellent role model for the workplace consultative committees.

.   AWU delegates in each district have been exposed to some formal training on consultation processes and committee work. This training has been provided by TUTA, who are prepared to extend the service at no cost.

The facilitators in QI (or technical advisers) should provide these groups with the skills on how to conduct brainstorming sessions, analyse problems and implement the solutions. We should aim to have a facilitator in each district and eventually, in each cost centre.

f) <u>Project Teams (Task Forces)</u>

Project teams are set up to solve a major issue or a problem. If it is a Departmental issue that requires cross-functional management then these teams will be Departmental ones set up by senior staff. Otherwise managers will set up teams for process improvement in their specific function or operation.

These teams should have a team leader, a facilitator and members representing a cross section of the process being examined. All members of the project team should be trained in this scientific approach to QI. This training for employees should be on the basis of "Just in Time".

g) What do employees gain from training in QI?

. Creativity
. Problem solving
. Activity planning
. How to measure, gather data and analyse
. Interpersonal skills
. Meeting techniques
. Communication skills (how to listen; how to converse)
. Team work

5.4 Role of Managers in the QI Program

In time we want all CALM managers to adopt leadership in the QI program. This means that they must become committed to the following principles of leadership in all their day-to-day activities:

1. Believe, foster and support TEAMWORK.

2. Be committed to the PROBLEM SOLVING process; use it and let DATA, not emotions, drive decisions.

3. Seek INPUT from staff before you make key decisions.

4. Believe that the best way to improve the quality of work or service is to ASK and LISTEN to the people who are doing the work.

5. Strive to develop mutual RESPECT and TRUST among employees.

6. Have a CUSTOMER orientation and focus toward employees and citizens.

7. Manager on the BEHAVIOUR of 95% of employees and not on the 5% who cause problems. Deal with the 5% PROMPTLY and FAIRLY.

8. Improve SYSTEMS and examine processes before blaming people.

9. Avoid "top-down" POWER-ORIENTED decision making, except in emergencies.

10. Encourage CREATIVITY through RISK-TAKING, and be tolerant of honest MISTAKES.

11. Be a FACILITATOR and COACH. Develop an OPEN atmosphere that encourages providing and accepting FEEDBACK.

12. With teamwork, develop with employees agreed-upon GOALS and a PLAN to achieve them.

6. CONCLUSIONS AND RECOMMENDATIONS

The Government and the unions have embarked on a reconstruction of the industrial relations system. The success of this program is dependent to a large degree on the commitment at the enterprise level. For real productivity gains to follow, employee involvement in the process is vital. It is also essential that managers adopt a participatory style of management.

QI is the catalyst to bring about these changes.

A QI organisation is:

a) client oriented

b) striving to continually improve its processes. (Improvement in quality reduces waste and error and thus improves productivity.)

c) using its human resource potential fully (it has deployed policies and problems to people closest to interface).

d) close to feedback and therefore there is an improved response rate.

e) aware of barriers that can be built up by branches or sections and uses cross-functional management techniques to overcome these problems.

f) aware that communications are enhanced if there is a systematic link between client-employee management needs.

g) in a better position to deal with industrial relations matters. (Employees are part of the decision making process.)

The climate is just right for CALM to adopt the QI program -

. tough economic times are before us
. awards are being reconstructed
. new timber strategy initiatives are being implemented
. community awareness of CALM is on the increase

The implementation of the QI program should be relatively easy. We have an excellent role model to follow in our safety program. Award restructuring process has, in its own right, developed the framework for a consultative process.
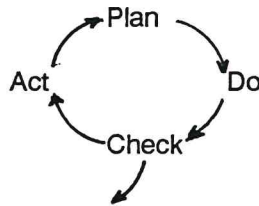
Each manager should become a "champion" of the Quality Improvement Program. After all, it is what good managers should be doing anyway. The QI program puts together the three elements of quality - teamwork and the scientific approach to management.

Our strategy is to build on the existing CALM culture through guidance and education and let the QI process grow from within.

CALM'S QI IMPLEMENTATION PLAN
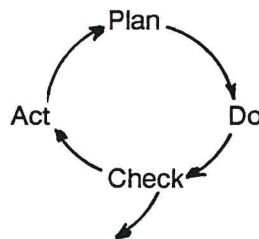
STAGE 1:

December 1990 - March 1991

Plan → Do → Check → Act (PDCA cycle diagram)

. Develop strategy

. Corporate Executive endorsement

. Expose all to QI principles

. Brief unions

CSA objections based on wage-productivity issues. Some managers sceptical.

STAGE 2:

March 1991 - September 1991

Plan → Do → Check → Act (PDCA cycle diagram)

. Educate 3 leaders in QI - one for each Forest Region (R Stone's 9 day Facilitator's Course)

. Educate all managers in QI (2 R Stone's 1 day seminars)

. Network with other QI Coordinators and groups

Most managers supportive. Making excellent progress with QI projects and training.

STAGE 3:

September 1991 - December 1991

Plan → Do → Check → Act (PDCA cycle diagram)
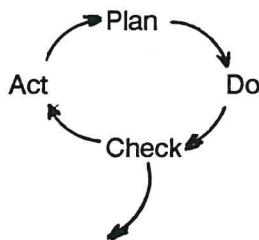
. Educate 42 managers to facilitator level (5 day R Stone's live-in course)

. Review and deploy strategy

. Formalise

    QI structure
    QI coordinator
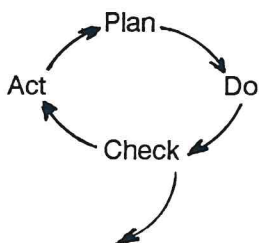   QI council

. Project completion

. Publicity

STAGE 4:

December 1991 to December 1992
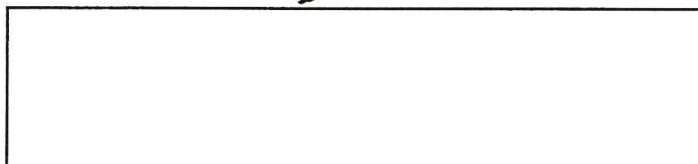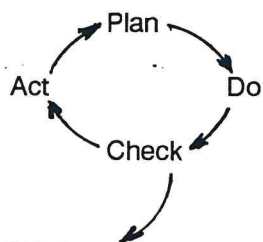
. Project completion

. Achievement

. Recognition

. "Just-in-time" training

. Publicity and CALM News

. Review strategy

STAGE 5:

December 1992 to December 1993

. Induction of new managers to QI

. "Just-in-time" training

. Has cultural change taken place?

. Review strategy if necessary