

Wallis Lake Fishermen's Co-operative Quality Assurance & Marketing Plan

- A Case Study -

*Norman Grant
Pacific Seafood Management Consulting Group Pty. Ltd.*



F I S H E R I E S
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*Wallis Lake Fishermen's Co-operative
Quality Assurance & Marketing Plan*

Non-Technical Summary

Over the past decade Wallis Lake Fishermen's Co-operative Ltd, located on the mid-north coast of NSW, has been forced by changing circumstances to adopt a more innovative approach to the marketing of its products - with particular emphasis on export. As part of this changing approach, the Co-operative introduced the concept of quality assurance and branding, which subsequently evolved through various stages leading towards international quality accreditation.

The purpose of the case study was to outline the efforts made by the Co-operative in the context of its background and particular challenges, to show how these efforts evolved, and to describe their success. However, the case study does not attempt to document the detailed processes involved in seeking quality accreditation

The Co-operative's approach embraced four of the major planks identified in the Fishing Industry National Strategy (FINS) - namely: Resource Access, Quality, Product Identification and Market Development. The case study examines the relevance of the Co-operative's experience to the FINS report.

The Co-operative's approach to more innovative marketing originated from a series of quality controls aimed at producing silver trevally of quality suitable for the sashimi market in Japan. However, it subsequently evolved to extend far beyond a quality assurance program. The case study shows how the Co-operative developed the circular links between -

- identifying and assessing marketing opportunities;
- enhancing product value by maintaining and promoting quality (to meet strict market specifications);
- reducing production costs; and
- selective and sustainable fishing methods.

The case study focuses on two of the most important success features of the Co-operative's approach: addressing the 'culture challenge', and development through continuous improvement.

The Co-operative came to realise that the success of any marketing initiative would hinge on the attitude and actions of all participants and support organisations. Whilst all the tangible components required for success seemed achievable - sustainable production volumes, value adding potential, cost efficiency and viable market returns - overcoming some traditional attitudes and practices which would inhibit the marketing initiatives, was essential. Therefore, the culture of the organisation was recognised as being a significant success component, and managing cultural change became one of the major challenges. To explore this, the case study placed focused on the history of the Co-operative in an effort to establish (and therefore understand) the strong links between the culture of the organisation in the mid-1990s, and 'traditional' non-productive attitudes and practices which have survived for many decades.

The case study also describes how the Co-operative's approach evolved over a period of time as new ideas were incorporated into it, and did not originate as a fully developed scheme or plan. Some of the main objectives were identified along with some of the main strategies, in a broad concept. Co-operative members were then able to suggest new or improved methods and strategies, or additional objectives which might apply to broader challenges faced by the Co-operative. These came from group 'brain storming' on the subject, experience in trying or carrying out some of the solutions, or from external innovations which came to their notice. Hence the concept of Continuous Improvement was 'discovered' and became 'naturally' integral to the overall scheme.

The case study was written in June 1996, although a significant portion of the background had been researched from January, 1996. This research involved several lengthy interviews with the current Manager of the Co-operative who subsequently reviewed an initial draft. Interviews were also conducted with the Chairman and with several key members.

Informal interviews were also conducted with Sydney Fish Market Pty Ltd staff in relation to statistics, and with members of the Master Fish Merchants Association of NSW in relation to perceptions of the quality of Wallis Lake product over a period of time.

As many of the key issues covered have not previously been documented, there was some difficulty in establishing the exact time of certain events or the volumes and values involved. It was also necessary to protect the commercial advantage of the Co-operative in any description of its development of adjacent fisheries, handling technologies and marketing strategies. As a result, the case study approach was to concentrate on the sociological aspects of the Co-operative's planning.

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Prepared by -

Pacific Seafood Management Consulting Group Pty Ltd
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1. EXECUTIVE SUMMARY

1.1 Aims of this Case Study

The purpose of this Case Study is to outline the Marketing and Quality Assurance Plan (subsequently referred to as the Plan) devised by Wallis Lake Fishermen's Co-operative Society Ltd, in the context of the co-operative's background and particular challenges, and to show how the plan was created, how it evolved and to describe its early successes and future.

The Case Study seeks to communicate the general thrust of the Plan, its development processes and its challenges.

It is intended that the Case Study will be used by people involved in the Wallis Lake Plan itself, and for others in similar situations contemplating the development of a similar scheme.

The Case Study also complements the Fishing Industry National Strategy (FINS) report completed in 1995, in that the Plan embraces four of the major FINS planks - namely: Resource Access, Quality, Product Identification and Market Development.

1.2 The Plan in Brief

The Plan originated from a series of quality controls aimed at producing silver trevally of quality suitable for the sashimi market in Japan.

It was subsequently developed, however, to extend far beyond a Quality Assurance program. Indeed, at the time of writing, details of the co-operative's QA program, which were to be implemented later as an integral part of the overall scheme, were only in the early planning stages.

This Case Study shows how the Plan embodies, and then enhances, the circular links between -

- identifying and assessing marketing opportunities;
- enhancing product value by maintaining and promoting quality (to meet strict market specifications);
- reducing production costs; and
- selective and sustainable fishing methods.

The Case Study focuses on two of the most important success features of the Plan: its development through continuous improvement, and addressing the 'culture challenge'.

1.3 Cultural Environment

The success of any production or marketing initiative hinges on the attitude and actions (or discipline) of all participants and support organisations (eg. transporters) involved. This is referred to as the culture of the people involved. In short, the culture needs to be enlightened and sympathetic to the scheme's goals, and pro-actively seeking to support and improve it. Its importance can be briefly demonstrated as follows:

All the tangible components of the Wallis Lake Plan: sustainable production volumes, value adding potential, cost efficiency and viable market returns, were assessed by the co-operative when analysing the feasibility of the scheme. In proceeding, there was an assumption that the estimates in each of the key areas were realistic and could be achieved.

Therefore, overcoming traditional attitudes and practices, some of which had evolved over many decades, and which would inhibit (or prohibit) the successful linking of the Plan's key components and stifle its development, was essential.

This diagram shows industry attitudes (or culture) as a barrier which Quality Assurance - at the hub of the Plan - must penetrate if it is to influence the major strategies.



However, cultural change is not a process which can be super-imposed 'overnight' on an industry which has evolved from traditional practices. So managing this cultural change became one of the key elements of the Plan.

In preparing this Case Study, exploring the roots of the existing marketing and quality culture was deemed essential to understanding the depth of the challenge and its importance to the Plan. To do this, additional focus has been placed on the history of the co-operative - as well as its geographic situation and particular challenges. This is to firmly establish (and therefore understand) the links to current attitudes and practices, and to show how, because they are traditional and familiar, many 'old fashion', non-productive, attitudes and practices survive.

1.4 Continuous Improvement

The Case Study also demonstrates how the scheme evolved over a period of time as new ideas were incorporated into it. It did not originate as a fully developed scheme or plan.

Some of the main objectives were identified along with some of the main strategies, in a broad concept. Thus armed, each committee member or participant in the program was later able to suggest new or improved methods and strategies, or additional objectives which might apply to broader (related) challenges faced by the co-operative. These came from group 'brain storming' on the subject, experience in trying or carrying out some of the solutions, or from external innovations which came to their notice. Hence the concept of Continuous Improvement was 'discovered' and became 'naturally' integral to the overall scheme.

Many such schemes are developed this way (and continue to be developed). Additional, related objectives and strategies which can apply to broader challenges, are often conceived from these processes - almost like a jig-saw puzzle wherein several of the pieces are joined to provide evidence that a bigger picture exists, and these provide clues for the filling in of the rest. The addition of one piece can often lead to the solving of several, barely linked, problems.

1.5 Methodology

The Case Study was written in June 1996, although a significant portion of the background had been researched from January, 1996. This research involved several lengthy interviews with the current manager of the co-operative, Mr Ron McDermott, who subsequently reviewed an initial draft. Interviews were also conducted with the Chairman, Mr Noel Gogerly, and with several key members of the Quality Committee.

Informal interviews were also conducted with Sydney Fish Market Pty Ltd staff in relation to statistics, and with members of the Master Fish Merchants Association of NSW in relation to perceptions of the quality of Wallis Lake product over a period of time.

As many of the key issues covered have not previously been documented, there was some difficulty in establishing the exact time of certain events or the volumes and values involved. It was also necessary to protect the commercial advantage of the co-operative in any description of its development of adjacent fisheries, handling technologies and marketing strategies.

As a result, the approach was to concentrate on the sociological aspects of planning development.

Interviews with members of the co-operative were kept deliberately informal so that difficulties with the accurate recall of events would not inhibit general discussion about evolving attitudes and aspirations.

2. BACKGROUND

2.1 Geographic Location

Wallis Lake is the name given generally to an extensive river, lake and estuary system on the mid-north coast of NSW. It is one in a series of lake systems extending for over 100 kilometres north from Port Stephens, - the others being the Myall Lakes and Smiths Lake. These are mostly incorporated in the Shire of Great Lakes.

The Wallis Lake system is fed by four substantial rivers - Wallamba, Wang Wauk, Coolongolook, and Wallangat - which descend from pastoral and forest lands on its western shores and are each navigatable (for small craft) for about 20 kilometres. The lake itself has three major components which are mostly non-tidal, relatively shallow and run adjacent to the coast.

The rivers and lakes separately join a large estuary with permanent and moving sand islands divided by various channels which ultimately combine several kilometres downstream at the ocean entrance.

Offshore a reef system extends east from Cape Hawke for about 10 nautical miles. It is joined by a north/south reef which roughly parallels the shoreline between the depths of 60 and 80 metres. Outside this is largely clear ground for trawling. The continental shelf falls away rapidly outside 100 fathoms - approximately 30 miles offshore. Trawling is also possible in several large areas inside the reef - particularly close inshore.

The main centres of population are the twin towns of Forster and Tuncurry at the mouth of the estuary. The greater area has a permanent population of about 20,000 people - 17,000 of whom are located in these two towns (1991 census).

Forster and Tuncurry are 330 kms north of Sydney by road (about 3 1/2 hours driving time) and the area is a popular tourist destination in the summer with the population swelling to 50,000 during peak periods.

Tourism is the region's largest industry with extensive focus on recreational fishing in the lakes and offshore. An extensive aquaculture industry, based on Sydney rock oysters, has developed in the estuary over many decades. Oyster farming and commercial fishing are by far the area's largest primary industries - each valued at around \$6 million per annum.

2.2 The Local Fisheries

Commercial fishing on this part of the NSW coast typically involves multi-species fisheries, and many fishers operate in more than one fishery during the year. Wallis Lake is a prime example of the multi-species and multi-fishery industry - in both its strengths and weaknesses.

The majority of the area's annual fisheries production comes from the rivers, lakes and estuaries which have proven to be resilient to decades of commercial fishing - although other human population impacts are predicted to take their toll in the coming decade.

Methods used by 'inside' fishers (to use local jargon) include gill nets, (often set overnight), haul nets, small traps, seine trawls (for prawns); and set pocket nets (for 'channel' prawns). Haul nets are also used off ocean beaches during the 'travelling fish' season.

The important 'inside' species include blue swimmer crabs, dusky flathead, sand whiting, silver bream, river garfish, and mullet. To a lesser extent mud crabs, leatherjackets, luderick and eels also contribute to the total. River, lake and estuary prawns (a mixture of school, greasyback and small king prawns) are among the major fisheries during the summer.

The multi-species nature of the industry also applies offshore (or 'outside'). Here the most common fisheries involve (small) otter trawls, traps, and handlines (or poles). Occasionally long-lines and drop lines are used.

The important otter trawl species are silver trevally, tiger and sand flathead, eastern sea garfish, and school (red spot) whiting. The most important trap fishery species are eastern rock lobster, snapper, ocean leatherjacket and silver trevally. The main line species include kingfish, bonito, mulloway (and the very similar teraglin, in season), hapuku and yellow-fin tuna.

2.3 Relevant History

Commercial fishing, by Europeans, in Wallis Lake dates back to the Australian Agricultural Company which developed pastoral holdings along coastal NSW from the mid eighteenth hundreds - generally before settlement in the area. Fishers came from overland and fish was sent by sailing vessels to Sydney, without refrigeration. Ice and sawdust lined bulk bins were the major quality related innovations during the era of transport by ship, which lasted well into the current century. Some practices, such as shading punt loads of hauled fish with cabbage palm

leaves as the only means of preservation, were still common as late as the 1980's, and kelp or wet bags are still occasionally used by some fishers.

The most significant development in fish marketing during this century was undoubtedly the establishment of the co-operative system along the NSW coast, commencing in the late 1940's. The co-operative movement was supported by the Government of the day with the appointment of a facilitator (who later became permanent Chairman of the NSW Fish Marketing Authority), access to waterfront land, and legislation which abolished fish agents and provided the basis for a regulated distribution system giving a marketing monopoly to the co-operatives and the FMA.

That system remained without major modification until 1993 when the State Government privatised the Sydney Fish Market, dissolving the Fish Marketing Authority in the process, and legislated for the phasing in of a de-regulated system by 1997.

One of the first to be formed, Wallis Lake Fishermen's Co-operative Society Ltd was incorporated in 1946. The main purpose of this enterprise, apart from satisfying the Government's interest in centralising fish distribution to provide more equal access to the State's catch for metropolitan consumers, was to encourage fishers to pool their resources to enhance the provision of marketing and other support services. In due course the co-operative was able to provide packing facilities and staff, coolrooms and ice, and clerical and accounting services. Some degree of vertical integration was also achieved with a retail shop, and the co-operative's own trucks and truck servicing division. The co-operative also provided non-marketing services such as a chandlery, slipway and fuel at bulk prices.

Although the shareholder fishers actually owned the business, and controlled it through annually appointed directors, the perception by shareholders of the co-operative as a service provider, rather than their own business, has remained. Profits have traditionally been redistributed via dividends and turnover bonuses - even when this was imprudent or to the detriment of facilities such as an adequate ice supply.

Most significant innovations during the co-operative's history have evolved from Fish Marketing Authority (FMA) initiatives. For instance, wooden boxes manufactured on site were used to send fish to Sydney until the 1960's. The introduction of plastic bins and standard weights was introduced by the FMA for the general use of all suppliers. A 'revolving fund' style of loan account, established by the FMA, was a major

contributor to many of the refurbishments, purchases and innovations which helped to upgrade and modify the co-operative during the past 20 years. The FMA also initiated and funded most of the industry's major product promotions.

With few exceptions, the Wallis Lake co-operative organisation and its individual members have been production focused - price takers rather than price makers. However, circumstances have tested this culture on occasion. During the late 1950's and 1960's, when both offshore and estuarine prawn catches resulted in extended 'glut' markets, fishers frequently resorted to cooking and selling large quantities of their catch directly to consumers at wharf-side. Although this was illegal, and clearly not a long term solution, it put fishers in direct contact with their market.

With one notable exception, the co-operative has not embarked on any major processing venture, other than to supply its limited wholesale distribution to local restaurants. However, in the late 1960's, a significant commercial scallop fishery was discovered close offshore and a brief 'boom' period commenced, with an influx of non-member vessels and significant development in scallop catching technologies. The co-operative was pressed to construct, to export standard, a scallop processing facility. The 'boom' ended before any significant production started and no similar venture has been embarked on since. The factory has since been used for the storage of dry goods, and due to its size and location (within the current administration building) is unlikely to be suitable for any modern processing operation in the future.

In hindsight, this long term policy of not becoming involved in large scale processing, has probably developed as the most sound approach to multi-fishery marketing, given the unpredictable and generally low annual volumes for each major species (despite booms and gluts) and given the economic disasters which have befallen other organisations which have rushed into processing. (The NSW Fish Marketing Authority maintained this policy throughout its life for those reasons).

In fairness, the regulated marketing system has encouraged the co-operative's focus on Sydney as its major outlet, although interstate and export trade has been largely unrestricted. Opportunities in these markets were not really explored until the mid 1980's.

During the past 50 years the co-operative has annually serviced up to 200 fishers in the area, although the number has fallen significantly in recent

years as resource management has sought to gradually reduce fishing effort. Production volume has been fairly static over the past 30 years, even increasing slightly as the co-operative has encouraged throughput from non-member fishermen pursuing migrating fish. This fairly static trend reflects both the resilience of the river and lake fisheries, and the increasing efficiency of catching methods (ie. fewer fishers now responsible for the same volume of catch).

The value of production has risen steeply during this time, however, with increased prices providing the major source of economic growth.

Table 1.
Volume and revenue growth over 30 years

Years	1965	1975	1985	1995
Annual sales	\$397,000	\$846,220	\$2,159,393	\$6,085,440
Av. price per kg	\$0.44	\$0.86	\$2.45	\$5.70
Annual catch in kgs	904,737	983,818	881,468	1,067,262

In 1994/95 the co-operative had 89 members. Total sales income for the year was almost \$6.1 million, providing the co-operative with an operating profit (before tax) of \$113,000. However, this followed much smaller profits in previous years and a net loss in 1991/92, demonstrating the co-operative's vulnerability to fluctuations in production and prices.

About 40% of the co-operative's fisheries production currently comes from 'outside' fisheries, and the balance from beach fisheries and enclosed waters.

Thus, from its history, it is easy to see how deeply rooted in the evolution and traditional practices of the local industry the current culture is. There has been no structured intervention (ie. training in process innovation, quality or marketing disciplines) for members, with most improvements (production and marketing) resulting from trial and error, technology transfer from passing fishers, and individual innovation. With the exception of one or two Fisheries Department workshops, it is unlikely that formal training in production or marketing by individual members (if any has occurred) has substantially impacted on this culture.

3. OPERATING ENVIRONMENT

3.1 Diverse and Changing Fisheries

3.1.1 The Effect On Viability

The co-operative is typical of many in northern NSW which service an industry based on multi-species fisheries. Few fishers in this region can rely on a single species throughout the year. This is often considered a strength as fishers, in the past, have targeted different species, and used different methods, according to seasonal 'runs' or longer term trends in availability. Although this flexibility has been used to mitigate price fluctuations, more often fishers in the past have all targeted in-season species at the same time, aggravating over-supply situations.

There have been significant changes in the co-operative's production base over the decades. During the 1960's and 1970's 'outside' fisheries flourished, with the port supporting a sizeable fleet of Danish seine and (later) otter board trawlers reliant on a thriving flathead fishery. Offshore prawn trawling, after summer rain, was common for many years and produced large volumes. A winter leatherjacket fishery supported a large trap fleet for several decades, with the grounds moving from 15 to 100 fathoms before the fishery 'disappeared' in the 1980's. A substantial rock lobster fishery also steadily declined during this time.

Beach fisheries were also prolific during these decades, producing huge volumes of mullet, silver bream and tailor, although much of this was sold outside the co-operative and is not reflected in catch figures for the period. The lake was also hauled for large volumes of similar species.

In the long run, the multi-species, multi-fishery nature of the port has saved the co-operative from the 'boom/bust' cycle experienced in many of the larger trawl fisheries, although individual shareholders have suffered as particular fisheries failed.

However, this constant shift in the production base, and the dependence on multi-species fisheries, has definitely inhibited marketing activities. It has been impossible for the co-operative to focus a sustained marketing effort on any one species or fishery, and difficult for it to react to the needs of fishers involved in different, and changing, fisheries. Often the same resources (trucks, staff, ice, etc) have been in urgent demand by different shareholders at the same time, throughout the co-operative's catchment. Given that its directors are usually elected to represent a cross-

section of fishing interests within the co-operative, it has also been 'politically', as well as logistically, difficult to plan around these events.

In addition, state-wide product promotion has focused on the larger, high volume offshore fisheries such as gemfish, and has been of minimal benefit to the co-operative. (In general, promotion effort has been dissipated as it has attempted to cover a broad range of species.)

3.1.2 The Effect On Resource Management

Multi-fisheries also present extremely complicated resource management problems, and these have impacted on the co-operative. Restrictions on effort (or inputs), to better manage some of the smaller fisheries, have reduced the flexibility which many fishers were dependent on. That is, many have been excluded from fisheries (or fishing methods) which they may have only pursued in times of abundance. Their operations are now confined to a limited number of fisheries in which they might well have a history, but which are constantly changing - and might well be trending towards lower production in a medium or long term cycle. The co-operative therefore sees this lack of flexibility as a narrowing of its production base as a serious long term threat.

Dramatic changes in patterns of availability have certainly been a feature of the co-operative's 'outside' production base and fishers are currently dependent on different species and much lower volumes than in the past. Indeed, it has only been in the last decade that trevally - the initial focus of the current Plan - has been recognised as a valuable fishery. (It has to be said that the recognition of trevally as an important commercial species for the port initially resulted from it being available, rather than from identified market opportunities - although this focus is now changing).

In addition to similar input controls imposed on 'outside' fishers, 'inside' fishers are in constant conflict with the recreational fishing and tourism industries over use of the waterways. This has already manifested in week-end closures and other restrictions, and long term attrition due to these pressures is anticipated by many. Environmental impacts such as mangrove destruction and catchment pollution from increasing foreshore development, and weed bed erosion exacerbated by the increasing use of the lake by tourists, also threaten the future viability of some fisheries.

The long-term uncertainty, and medium-term fluctuations in supply from fishery to fishery, present enormous obstacles to effective marketing. Hence, the need for a broad reaching production and marketing plan which

includes strategies for selective fishing to enhance the possibility of sustainability.

3.2 De-regulation and Co-operative Amalgamation

The co-operative, like most others in NSW, also faces the challenge of a new regulatory environment next year. In brief, current fish marketing Regulations require NSW fishers to sell their catches through a Registered Market - generally, either a fishermen's co-operative or the Sydney Fish Market. (There are some exceptions). The co-operatives, in turn, must send consignments destined for the County of Cumberland (Sydney) through the Sydney Fish Market. Commissions apply in both cases. The Regulations do not apply to interstate or export sales.

The privatisation of the Sydney Fish Market has obliged the Government to phase out the Regulations since it can't support a private corporation with a legislated monopoly. Without the protection of Regulations, many co-operatives fear marketing 'anarchy' with a worst case scenario being sufficient loss of shareholders, and/or their throughput, to make co-operatives unviable. A similar loss of throughput is predicted for the Sydney Fish Market in this scenario - even leading to its demise.

To avoid this, co-operatives (and the Sydney Fish Market) are endeavouring to provide better services to retain (or attract) viable throughput volumes on a purely commercial basis. Wallis Lake Co-operative sees the Plan as critical to this process - by providing a level of marketing services capable of producing a genuine net improvement in financial returns to fishers, as well as maintaining the viability of the co-operative.

Constantly reiterating this latter point is also integral to the Plan. Many members still perceive the co-operative as a service organisation - not as a business in which they share ownership and the rewards of profitability. Indeed, there is often a significant gap in communication and agreement between ordinary members, directors and staff - sometimes resulting in the perception that the directors and management have 'hijacked' the co-operative. The Plan, which should benefit all shareholders, is seen as an opportunity to overcome this perception; to improve communication and understanding between various factions within the co-operative; and to promote member loyalty with the prospect of genuine commercial rewards for both the organisation and individual participants.

3.3 Risk Of Insolvency

Regulations covering the operation of co-operatives require them to 'pay out' inactive shareholders. This has caused severe financial problems for co-operatives as many original members (with large share holdings) have reached retirement age, at a time of heavy membership attrition due to tighter resource management controls. With these pressures, the need for on-going refurbishments or extensions to maintain service levels, and the tradition of profit redistribution (annual dividends and turnover bonuses), many co-operatives are vulnerable to cash-flow crises during periods of poor supply. Indeed, some are currently threatened with insolvency.

This situation would be greatly exacerbated by the 'desertion' of members in a deregulated market. The amalgamation of Wallis Lake Co-operative with five others, to consolidate their position, is currently being pursued for this reason. It is essential that each (or all) of these co-operatives introduces innovative and successful marketing strategies to match those of competing outlets.

As mentioned before, resource management has already drastically altered the pattern of production in this area and Wallis Lake Co-operative is under considerable pressure to add value to its turnover volume. Effective marketing, with quality as a fundamental element, is now more essential than ever, and the Plan may well form the basis of a 'survival strategy' in the coming years.

4. OPPORTUNITIES

4.1 Export Markets

The 1980's saw the decline of major offshore fisheries such as flathead, and the departure of the larger otter trawlers which had replaced the Danish seine fleet in the late 1970's. Trap fisheries also declined and some of the larger trap vessels turned to small scale otter trawling, targeting remaining species for which there appeared to be growing demand. One of these was trevally, which the Fish Marketing Authority had promoted, with some success, as a 'cooking' fish - suitable for fresh fish portions in fish and chip shops.

Trevally had previously been a very low value species - largely because of its reddish flesh colour and oiliness, and a long tradition of being used for bait (because of these attributes). At that time, bland white fleshed fish were preferred by domestic markets for table fish, with species such as ling and orange roughly in the growth phase of their product life-cycle. However, with the steady rise in southern shark prices, and increasing difficulty in obtaining *capensis* hake from South Africa - two species of importance to the fish and chip trade - trevally began to achieve some recognition as a substitute. At around the same time, success in the Japanese market with Australian tuna had led to the establishment of a number of fish export agents in NSW, along with the opportunity for non-tuna species suitable for the highly specialised 'sashimi' market in Japan, of which trevally was one.

The major focus, however, was on tuna and although considerable attention was being shown by some operators to achieving export quality specifications, non-tuna species were largely ignored in ports where tuna were not generally landed, such as Wallis Lake. Indeed, the change in quality culture which the export tuna industry introduced to NSW remained heavily polarised around the tuna ports of Coffs Harbour, Ulladulla, Bermagui and Eden, for some time - and there is ample evidence that this variation in attitudes to quality still remains.

Small otter trawlers working out of Wallis Lake began targeting trevally during the mid-1980's. Although these (previously trap) fishers had experience in handling table fish, the requirements for handling sashimi grade fish were not well understood and it is easy to imagine some reluctance to apply the same standards to trawled trevally as, say, the more highly prized and familiar (as table fish), snapper. Around that time the NSW Fishing Industry Training Council produced an excellent publication on the handling of non-tuna sashimi fish but it seems the

established quality culture could not be so easily converted. As a result, all the trevally at that time were sent to Sydney and the focus on export did not commence until the early 1990's.

When export trials did begin, quality issues immediately emerged as one of the main constraints to the development of export sales for the co-operative. These problems also highlighted the need for a formally constructed plan for quality assurance and market development, within the co-operative. Those fishers who attempted to meet export quality criteria were frustrated at the loss of market opportunities by those fishers who had not met the standards. To make matters worse, the traditional price pooling that applies to Sydney Fish Market sales, was also used for export accounting, so that those fishers with poor quality product received the same returns as those who had tried harder - a massive disincentive to improvement. Several attempts to develop an export operation lapsed.

In 1991 two members established their own factory to process school (red spot) whiting which could be trawled in significant volumes off the coast. These fish were filleted and further value-added by a food processing company at nearby Taree - a modest marketing success which still continues. Although there was considerable disharmony between members of the co-operative over aspects of the fishing methods used, the enterprise provided tangible evidence for many that improved quality techniques and innovative marketing could enhance the value of their local products.

In 1992, changes in the ownership of the co-operative's export agent resulted in a proactive effort to overcome quality problems. The new agent, who had first-hand knowledge of Japanese market requirements, visited the port in both 1992 and 1993 to personally instruct fishers in aspects of sashimi handling and other related issues.

The sessions were short and very basic but with the benefit of these, and an evolving attitude change towards the handling of trevally, some early success was achieved by the otter trawlers - in both catch volumes and prices they received. These improved returns, in conjunction with some variations in their gear and methods, were eventually sufficient to make it viable for trap boats and hand-liners to also target trevally, and this developed during 1995 as prices rose. (The export agent has continued to conduct two hour annual 'workshops', but to a larger audience of members.)

Table 2

Silver trevally - evolution of market targetting by Wallis Lake fishers

> mid-1980's	1985 - 1992	1990 - 1992	1992 - 1995	1995 - 1996
By-catch and bait product	Trawling for fish & chip market	Unsuccessful export trials	Successful selective trawling for sashimi grade export fish	Trawling, trapping and handling for export

A market opportunity had clearly been recognised by those involved in various types of catching operation, as had the need for a different product handling approach.

The co-operative's management also recognised the opportunity these improved returns offered in defending the organisation against likely competition for members' product when deregulated marketing conditions were phased in.

In addition, if higher levels of quality could be consistently obtained as the result of a formal quality assurance program, it would enable the co-operative to negotiate on the basis of periodically fixed prices - seen as extremely desirable in terms of financial planning.

4.2 Proactive Sustainable Fishing

Given the history of declining fisheries, both 'inside' and 'outside' and the pressures being exerted on the lake system from recreational fishing, tourism and land development, it is not surprising that many members felt the co-operative simply did not have a sufficient resource base to enter the export market. Although this perception has now changed, the fragility of the resource is still of prime concern and there is some sensitivity about the area's ability to service an export trade in the longer term, and the impact of any concentration on a particular species fuelled by its higher (export) value.

However, the very fact that more money could be made from the same volume of fish addressed this issue and some members saw an opportunity to reduce pressure on the resource by targeting fish for higher value markets. The actual reduction in effort came when members resolved to limit fishing so that export orders were not exceeded and this was an important milestone in cultural change in the port.

Lobster quotas and other management restrictions being debated in the early 1990's certainly created an environment conducive to reviewing old attitudes about resource availability and usage at this time. Many members were in favour of a proactive approach to resource management rather than see further depletion.

This reached an interesting stage as prices, and successful innovation of traditional trap fishing techniques, attracted more trap fishermen to the trevally fishery. Some line fishermen also targeted significant volumes so that three different factions within the co-operative were soon competing.

By 1994 the co-operative had a standing export order for around 1,500 kilos of trevally per week. This was soon exceeded, with the balance being consigned to the Sydney Fish Market where domestic prices were much lower. Price pooling enabled a fair distribution of the returns but fishers generally were not happy about catching fish for the lower prices.

This was resolved simply by all participating fishers agreeing to an 'in-house' quota - daily divided into individual quotas depending on the number of vessels at sea on that day. The fact that the fish were being caught in different areas at different times by the various methods (trawlers accounting for the majority one week, trappers the next) eased some of the competitive tensions and trap fishers were reasonably content that the quota would prevent overfishing by the trawlers. In the event, success in the different fishing areas varied and all factions agreed that quota shortfalls could, if needed, be met by the other boats or methods, so that consistency in the co-operative's export order would be maintained.

4.3 Membership Unity

An added bonus for the co-operative in overcoming the over-quota situation was that the very process of planning production to suit export orders, resulted in a better understanding each other's catch methods and strategies - thereby bringing the factions closer together.

Such resolution of conflict and the constructive arrangements which followed provided some evidence that a formal process of strategic planning within the co-operative might not only remove the source of many existing and future conflicts, but might unite members in the broader goal of supporting their organisation.

Facing the prospect of having to compete for members' product in a deregulated marketing environment, achieving unity between factions within the co-operative and between individual members and the co-operative organisation, was seen by management as a prime opportunity - particularly if the process delivered results which would demonstrate that the co-operative was commercially competitive.

5. THE CULTURE CHALLENGE

5.1 Qualitative Fishing

One of the fundamental 'traditions' which the Plan's concept challenged was that, to earn more money, fishers should simply try to catch more fish. Instead, the Plan encouraged them to focus on greater value for their current level of catch, rather than pursue higher volumes.

Although this seems straight forward, particularly in an environment of depleted fisheries and restricted access, many fishers feel threatened by this concept and have publicly expressed this view. Some argue that the very attributes or objectives which make a fisher pursue this occupation are challenged by this approach.

One is the so-called 'hunter instinct' which attracts fishers to the 'endless' pursuit of their quarry regardless of the many factors which might prevent this being a sustainable and commercially viable activity. This translates to an entirely production focused operation where the design of better vessels, electronic equipment, fishing gear and fishing systems is paramount to the perceived success of the operator - generally measured by improved catch rates (if not catch volumes). Related to this attitude is an approach based on a distrust of markets - often due to lack of familiarity - and, therefore, an unwillingness to give up the right to pursue greater volumes of fish (in case the market falls).

It is easy to see how this 'hunter instinct' could be challenged by the notion of not only voluntarily restricting quantities, but reducing catch efficiency to target only certain species and size ranges, to suit specific markets. The production focused approach is also often the result of a preference by individuals to match abilities against the natural environment rather than against the challenges of business. This is supported by the familiar philosophy of many fishers that they have chosen the 'way of life' as an alternative to the perceived constraints of being in business. Although it is probably a diminishing element in the industry, this attitude has certainly been a major contributor to the current culture of the Wallis Lake membership.

Such fundamental personal philosophies are obviously difficult to reconcile with rational business objectives. The task, clearly, is to prove that a qualitative approach to fishing doesn't endanger lifestyle goals, that it is learnable, and that it may well be the only way to preserve the 'hunter' in his role.

5.2 Product Quality

5.2.1 Inherent Attitudes

The deeply ingrained attitudes towards fish handling provides one of the most difficult challenges for the co-operative. In the 50 years of its existence, quality controls have been mostly limited to the single parameter of 'fit for human consumption'. There has been little experience of withholding poor quality fish for the sake of market reputation or to increase prices, on the basis that a market (and therefore some return) generally exists for all qualities of product. Volumes, on the other hand, have been frequently adjusted to influence prices.

There is a remarkable similarity between quality measures still widely used by members, and practices recorded over a hundred years ago. For instance, the acceptability of shading fish with wet bags or palm leaves, as a substitute for ice or other refrigeration, between the point of catch and the co-operative. The fact that Regulations were introduced as late as the 1980s to force fishers to maintain minimum standards of refrigeration on their vessels (usually defined as carrying several boxes of ice) is testimony to the reluctance of some fishers to apply even the most basic temperature control to their catches. (It is yet to be seen if sufficient cultural and behavioural change has been achieved to justify the recent removal of those Regulations).

It is easy to underestimate the power of traditional practices in ports such as Wallis Lake. Fishers there have, for the most part, learned their trade from older generations or by trial and error. Given that the production focus approach has reigned supreme for all but the last decade, with members assigning most post-harvest responsibilities to the co-operative (and often over-riding attempts at quality control at the point of consignment), there has been little to indicate to individual fishers that the prevailing quality culture was not acceptable.

As the co-operative, rather than actual buyers, was as close as most fishers got to their market, feedback was limited to the information passed on by the management organisation. The real test of product performance for most fishers was the price received, and lower than expected prices were rarely attributed to quality deficiency - rather volumes and other market vagaries (such as timing) were blamed. At the same time, this isolation from the real market deprived fishers of the incentive of quality related or niche market price opportunities, or the training which might have been provided by first-hand contact with buyers.

Even during the past decade, when the degree of interaction between fishers and buyers has increased enormously, the placement of co-operatives and the central market between fishers and buyers (and to some extent the maintenance of a cultural barrier between the two groups), and reliance on these organisations by the majority of fishers, has deprived them of the knowledge needed to bring about real change.

Indeed, the co-operative's current Plan is largely due to the direct contact (and consequent knowledge of niche market opportunities and quality criteria) with the specialist export marketing agent who, in turn, has first-hand contact with Japanese buyers.

The real innovation in this Plan comes from the co-operative itself (probably from a combination of better management and competitive pressures) now taking responsibility for initiating the change in quality culture.

5.2.2 Absence Of Training

Another factor maintaining the former quality culture of the membership has been the total absence of structured training. There has been almost no opportunity for prevailing attitudes to be questioned from within or, if they were, to be corrected. The knowledge has simply not been accessed by local fishers. Although this seems a simplistic explanation given that in some sectors of the industry huge advances in technology have been made, and that self-education opportunities in the community in general are high (most tradesmen in the area receive training from the local TAFE college), these opportunities have not generally been available to Wallis Lake fishers.

In short, most have inherited a culture based on lack of appropriate knowledge, have not recognised the deficiency, and have had little opportunity to do anything about it, if they had wanted to.

Most innovation in individual quality controls has been introduced in the past decade, but until now there has been no systematic approach to linking these into a broader program of quality assurance. Although some quality related innovations have had a large impact on the co-operative (eg. the installation of live holding systems for lobsters), the current Plan has been the first attempt by either individuals or the co-operative organisation to introduce a systematic approach to both quality assurance and marketing.

5.2.3 National Cultural Differences

Given the prevailing quality culture as outlined above, the concept of quality enhancement, or value-adding, seems very remote. In this, the membership is particularly disadvantaged and a cultural gap of another kind exists.

There is already an identified problem with fishers seeing fish as a raw material rather than as a food product. The concept of fish being considered almost 'table-ready' on board, (as sashimi fish might be considered) is quite a leap in perception. It must also be hard to visualise each fish in terms of its final export retail value.

This process is made more difficult by national cultural differences. It must be very hard for a person working in coastal rural Australia to grasp the very different value placed on food products and cuisine in Japan, for instance, in terms of traditional and cultural significance as well as intrinsic value. The snapper caught in today's trawl might well be, in a few days time, the centrepiece of a young Japanese couple's 'Golden Week' wedding - a revered and treasured symbol of an extremely important occasion, in a country where such symbols are themselves very important. The fisher's handling of the snapper may even be reflected on by traditional, expert consumers.

Ironically, although geographically much further removed, the consequences of not meeting the expectations of the foreign consumer will be almost as quickly felt as those of not satisfying the Sydney buyer; the result will almost certainly be less forgiving; and the impact is likely to be far more significant, given the values involved.

The Wallis Lake producer, therefore, has a huge challenge to meet. The ingrained nature of the prevailing culture in relation to qualitative fishing and product handling, often anchored by conflicting philosophical objectives and deeply rooted in the traditions of the port, could well be considered the major impediment to the success of the current scheme. Attached to this are the limited opportunities for education and training to reform that culture, and the need to quickly understand the idiosyncrasies of other national cultures to properly understand their values and needs - a challenge for producers in any field.

Addressing these challenges, of course, is by no means beyond the resources of the industry or the community, if the challenges are both recognised and met. This is probably the biggest 'if' in the program.

6. THE CONCEPT

6.1 Rationalising The Concept

The first step in translating the extensive matrix of problems and causes/needs and solutions, outlined above was to develop some primary objectives and major strategies to achieve them.

This is a sound process in the development of any plan, and enables the participants to see through the confused detail (anecdotal and otherwise) from a myriad of sources - most of which generally relate to tactics. That is, problems or aspirations tend to attract recommendations for actions before those problems or aspirations are properly defined, or seen in the context of a broader picture. This can result in actions which don't produce the desired outcome in the longer term, or which are counter-productive to other outcomes. This 'crisis management' approach also deprives the organisation of 'economies of scale' - the ability for one solution to solve several problems, and even enhance a situation beyond the original requirement.

This latter attribute of rational planning certainly became apparent to the co-operative in the early stages of the process and probably did much to encourage the support of members who soon saw that elements of the scheme could have broader reaching, beneficial ramifications.

In rationalising their ideas, the co-operative also found that their prime objectives were quite different from the ideas first articulated.

The task was first attempted by a group including the Manager and Chairman, with input from individual directors and members. The concept had been discussed informally at Director's meetings and was left to the Manager to develop. The following objectives and major strategies were not documented but had been discussed to the point of isolating the major elements.

6.2 Primary Objectives and Major Strategies

6.2.1. Pro-active Sustainable Fishing

This objective targets the need (perceived or otherwise) to reduce effort in the local fisheries, for the dual purposes of enhancing the prospect of long term sustainable catches, and to mitigate the prospect of a politically motivated reduction in effort or the closure of fisheries. The importance of this objective was not lessened by the fact that over-fishing has not been identified as a problem for the species likely to be included in the Plan, and that little or no research has been carried out to verify the status of the stocks.

The co-operative decided, for strategic reasons, that an attitude of voluntary reductions in effort, where possible, should be adopted until research evidence suggested this was not required. The co-operative adopted the term 'pre-emptive conservation' for this strategy.

6.2.2. Production Cost Reduction

The need to reduce production costs had not originally been considered a priority and was certainly not one of the 'sparks' from which the scheme originated. However, when the concept of qualitative fishing was thought through, it became clear that reducing costs was as integral to the idea of catching less fish for more money, as higher prices were. That is, the focus switched from turnover to profit.

This was demonstrated when the in-house quotas were introduced and it became obvious that the trawlers could save considerable money on fuel, gear and maintenance expenditure, as long as catch rates were maintained and higher prices achieved, because fewer trawls (or trawling hours) were required to fill the quota.

6.2.3. Added Value

This objective addresses the second component of the profit equation, which is higher prices - to be achieved by adding value to the catch.

This was to be achieved by correctly targeting niche markets, and by designing and implementing quality controls to consistently achieve market specifications. The product would then be differentiated and its premium quality promoted.

7. MAJOR STRATEGIES

7.1 Planning Committee

The first real step in converting the scheme from a concept to a plan was to involve members directly in the planning process (rather than introduce a management or externally developed plan). This was a very natural progression as many of the fishers involved in early export trials had been developing or suggesting individual innovations to improve handling and returns for their own product, and were concerned about other fish in the same shipments. Thus some motivation to participate already existed and those involved were invited to form a committee.

As the concept was still seen by most fishers as relating simply to improved handling, the committee's immediate focus was on quality issues and it became known as the 'Quality Committee' - the title enabling its purpose to be at least roughly understood by the remaining membership. Initial meetings of the committee enlightened members to the broader goals of the concept and the objectives and major strategies outlined above were agreed to.

Two subsequent meetings focused mainly on quality controls imperative to the co-operative's immediate export orders. These were as basic as re-affirming size specifications, basic parameters for the use of ice slurry at sea, and a requirement for fish to be in rigor at the point of weigh-in to be accepted for export shipment. However, these meetings fell well short of describing in precise detail, or documenting, these controls - leaving co-operative staff in the unenviable position of having to adjudicate on product at face value.

It became clear that a documented quality assurance program would have to be developed and properly executed. The formation of the Quality (or planning) Committee, however, immediately ensured that a core of directly interested fishers (other than management) was now involved in developing and promoting the process.

7.2 Training

To achieve the basic quality specifications of the export market, some understanding of the requirements had clearly been required. The first step in this process had been achieved by the workshops supervised by the co-operative's export agent. (Two such workshops had been held prior to the formation of the Quality Committee.) Although these adequately outlined the specification requirements, they did not address methods of achieving these in sufficient detail, or the need for on-going training.

An early challenge for the Plan was to differentiate between product specifications and training - many participants being under the impression that simply understanding the specifications was training enough to achieve these consistently.

It was probably this confusion which led to the situation where training had been identified as a necessary component of the Plan but (although timing would indicate the need to build training in at an early stage), there was no evidence that a training program had been 'pencilled' in - even well into the latter stages of the Plan's development - a major shortcoming.

7.3 Support Programs

It was clear that the Plan would have to involve all the elements in the distribution chain, including co-operative staff, and those organisations not under the direct control of the co-operative - such as transporters.

The importance of the co-operative's floor (packing) staff in the Plan's success may not have been fully recognised at the outset. Heavily influenced by the cultural environment, (particularly long term staff), they were often placed in the difficult position of facilitating the speedy receipt of product whilst enforcing the co-operative's operating rules. It became clear that they would be at the frontline of the quality assurance process at a critical point in the distribution chain.

As front-line supervisors of the process, it would be necessary for them to be both well trained (to the point of gaining the full confidence of members) and empowered - the latter implying greater responsibility and, presumably, greater reward.

The first stage of addressing this issue was the organising of staff groups to discuss the possible introduction and content of Enterprise Agreements. These would also address the issue of costs, with elements such as multi-tasking and built-in overtime aimed at maximising productivity.

The co-operative also indicated it would seek quality agreements with external freight companies (the co-operative's own transport division would be covered under a Policy and Procedures Manual) and even the Sydney Fish Market - the co-operative's main domestic outlet. In addition, plans were mooted to redesign operational elements of the co-operative's main building, to export standard.

7.4 Incentives

The co-operative's management had already calculated that a wider participation by members would be needed for the benefits of value-adding and export marketing (not necessarily the same, as domestic markets for value-added products were now under consideration) to be of significant overall financial benefit to the co-operative. Ensuring consistent supply for export orders was also an imperative and there would be an added bonus for the co-operative in attracting throughput from outside the membership.

The Directors, therefore, agreed to reduce the co-operative's commission by 3.5% on export orders, to encourage participation. Calculations demonstrated that total commission revenue would not fall as a result of this because the lower rates applied to (value-added) throughput for which higher prices were reasonably assured. At the same time, participants would not be penalised for the higher prices paid for their product, and the full gap between domestic and export returns (ie. after commission price) would be retained.

7.5 Publicity

The co-operative also made a concerted and planned effort to seek publicity for the Plan. This was to provide essential re-enforcement (and often the latest details) of the positive actions being undertaken, to both members and clients of the co-operative. (This policy was certainly effective in maintaining the momentum of the scheme, and in generating new ideas and associates.)

The publicity was sought through national trade magazines and community newspapers. It was particularly directed at the local community - with emphasis on 'proactive sustainable fishing' and on the pursuit of value-added markets and quality assurance - to maximise income from the resource.

In addition, the co-operative management personally addressed groups such as the local Chamber of Commerce to emphasise the value-adding philosophy of the business, to gain support for the industry's approach, and to offset any compounding of fears about resource depletion (which has implications for the region's largest industry - tourism).

8. QUALITY ASSURANCE

8.1 Approaching A QA Program

The Wallis Lake quality assurance program was yet to be fully documented at the time of this Case Study so any detailed report on a model, for others to follow, was not possible. What is probably more important to others facing similar choices, however, are the circumstances of the co-operative, its quality objectives and its approach.

It is timely to remind readers that seafood quality refers to a far wider range of product attributes than 'freshness', appearance or taste. Perhaps a better way of thinking about product quality in this context is the product's ability to consistently comply with a set of specifications established by the market. Those specifications might certainly include 'freshness', appearance or taste (measured by some criteria) but could also include size, weight, colour - even packaging. The important thing is: whatever the specifications, the product must comply every time, and preferably in a cost efficient manner so that the customer knows the product represents good value.

Quality management then, can be thought of as all those systems and controls which are set in place to bring this about - including procedures, checks, preventative or remedial actions, as well as management and training, and even feedback from customers. There are a number of established approaches to designing and implementing an effective quality assurance program which are best studied separately in specific text.

Often, however, quality assurance starts with a series of individual quality controls which need to be devised and monitored. This was the initial approach taken by the co-operative.

Several criteria (or imperatives) had been introduced during the Wallis Lake export trials to help screen suitable product. These were verbal descriptions, often based on trial and error and open to interpretation. For instance, it was decided that sashimi grade fish should be placed directly from the trawl cod-end or fish trap into ice slurry whilst alive. Although there was no physiological research to support it, this method was identified by trial as best. However, with no specification for what constituted an ice slurry, the results were open to wide variation. It was also decided that only fish in full rigor at the weigh-in would be accepted for export. However, little was known about the process, (even whether it

was a beneficial criteria), and there was no objective measurement - other than a perceived rigidity in the fish. Although these rough controls were to some extent effective, clearly some objective assessment of the benefits was required, along with detailed clarification of the procedures and measures.

The QA component of the Wallis Lake Plan, therefore, is an attempt by the co-operative to depart from the unstructured approach to developing Quality Assurance, and set in place a planned framework of processes and controls - albeit subject to continuous improvement.

Faced with this extensive planning task and a wide range of options, the co-operative was able to take advantage of the Australian Seafood Industry Quality Assurance Project - a jointly funded Commonwealth and State Government initiative which commenced in 1995.

Consultants attached to the project are currently (June 1996) assisting the co-operative to documenting its procedures and processes. The aim of this is to achieve the internationally recognised ISO 9002 Quality Assurance standard - subject to approval by an independent audit bureau.

8.1.2 Documenting Quality Controls & Procedures

The QA project will result in at least four major documents to assist and guide the co-operative, its staff and members.

The first of these will be a Specifications Manual which will set out the product specifications for particular markets - product form, gradings and other criteria. This will address the less than perfect quality specifications currently in use.

The second will be a Process Control Manual which will examine and describe the co-operative's systems, or processes, and the controls it has in place to ensure the performance of those processes. If successful, it will show what controls are necessary, where in the various systems they are best placed, and the criteria by which they monitor the systems (or processes). These processes will include the co-operative's business administration and its documentation of transactions throughout the distribution chain, for instance, as well its operational processes.

The third will be a Regulations Manual which will document the regulatory environment in which the co-operative must operate. It will include such things as Regulations under the Co-operative Act; relevant Regulations under the Fisheries Act, Local Government Ordinances, etc.

The fourth will be a Policy and Procedures Manual. This will document the co-operative's Rules, board decisions and policies and will be constantly up-dated. The co-operative's overall policy in relation to quality will be enshrined in this document - with the board accepting the recommendations of the Quality Committee on these matters.

If the co-operative is successful in amalgamating with others in its region, the amalgamation process has been designed to accommodate the automatic adoption of the QA program by all the other participants. This has recently emerged as a major objective in the co-operative's QA planning.

8.2 Product Identification and Promotion

One of the first decisions made by the co-operative was that all product ultimately handled within the Quality Assurance program should be differentiated and that the co-operative should receive the full kudos (or commercial benefit) of this. (It is interesting to note that the same decision implies acceptance by the co-operative that some product wouldn't pass through the program - and wouldn't be required to.)

Even before the program was devised, a logo was developed for 'Wallis Lake Quality Assured' product and promoted in local press advertisements. Naturally, no product was available under the 'brand' at that time but the pre-publicity certainly announced the direction the co-operative was taking.

The co-operative's intention is to label all packages (domestic and export) of appropriately handled product as 'Wallis Lake Quality Assured'. This range would seek to attract a premium over the current range of products sold locally and at the Sydney Fish Market, but should not detract from the current level of prices.

The co-operative did not undertake any detailed marketing research to justify its wider entry into Quality Assured markets (ie. in addition to meeting criteria for export orders) but took the broader view that, even without the evidence of positive revenue forecasts, as one might expect before undertaking changes to a production process, it was risky NOT to proceed in this direction. The factors receiving consideration were the need to reduce costs (including wastage from spoilage), the perceived need for a sustainable competitive advantage, as well as recognising the benefits in regard to their general trend towards export opportunities, the growing focus on food safety, and the need for a formal program of cultural change.

9. IDENTIFYING LINKAGES AND BUILDING THE PLAN

As the Plan evolved primarily from a series of earlier export trials, there was no starting point from when it could be said the Plan was 'implemented'. In other words, certain elements of the existing operation were incorporated into the Plan and many were subsequently modified. Although initially unstructured, this was an important process because it introduced the concept of Continuous Improvement in relation to the one major, mutual goal. (Although fishers are happy to improve individual catching techniques, management initiatives in the past have tended to attract criticism if they did not succeed first up.)

9.1 Initial Linkages

Preliminary export trials had provided some of the first indications of the linkages which could be achieved in a broader marketing/quality plan, as well as much of the data from which the first round of decisions were made. For instance, when trawlers began targeting trevally of the size specified by the export agent, they were able to modify their gear to achieve a catch rate of 85% of the targeted size. By excluding an otherwise large proportion of smaller fish, for which domestic prices provided no incentive to include, the volume of fish landed per trawl was significantly reduced. The smaller volumes, in turn, significantly reduced the damage to the fish which generally occurred in the cod-end during towing, and allowed greater attention to handling on board. The time and effort involved in sorting and grading was also reduced. In other words, the benefits compounded.

At the other end of the process, fish were frequently rejected by the export agent just prior to shipment. Clearly this assessment process needed to be moved forward but importantly, it demonstrated the inadequacy of the individual quality controls, and the need for a systematic quality assurance program.

9.2 Improving The Quota System

Despite early setbacks, the higher (average) prices from those fish selected for export eventually encouraged all the trawlers in the port to participate, and made it viable for trappers and hand-liners to target trevally. Trappers were also able to modify their gear and developed a different approach to setting their traps, resulting in improved catches (in addition to higher prices). At the same time, trawlers were forced to an even higher standard of handling, to match the quality of the trapped and hand-lined fish.

As touched on in Section 4, the result was that catches of suitable fish quickly exceeded the export order. Already concerned at the effort now focussed on export size trevally, placing surplus fish on the domestic market at lower prices was an option quickly rejected by the members - a significant recognition of the value of qualitative fishing and an important milestone in the Plan's development.

Instead, fishers chose voluntary catch restrictions. These were based on loose, individual quotas - varying according to the number of vessels at sea to service the export order. Monitoring the quota, in terms of daily operations, was achieved with a simple radio call-round organised by the co-operative so that over-quota was minimised, and/or one particular group could continue to make up for any likely shortfall by the others. (Fully filling the order was still considered as important as not exceeding it). Overall, this was a significant agreement between members.

9.3 Selective and Sustainable Fishing

This co-operation between fishers resulted largely from an understanding that quotas and selective fishing reduced the competitive nature of their operations. In the long term, each group could have confidence that stocks would not be depleted by the other because the export order acted as a TAC (Total Allowable Catch). From day to day they were assured that their share of the export order would not be filled by other boats - unless they were unable to fill it.

This mutual confidence in the arrangement did much to bring the two groups together and established a footing for a co-operative approach to developing further aspects of the Plan.

These were the first real steps towards 'proactive' sustainable fishing and certainly the first formal application of selective fishing. Trawlers were consequently encouraged to design and make nets better able to target the larger fish and, in more recent times, the use of by-catch reduction devices has been investigated.

9.4 Cost Reduction

The most significant consequence for the trawlers, however, was the dramatic reduction in costs. These resulted from the fewer number of trawls needed to fill the quotas, further improvement in fuel consumption from towing lighter trawls (because non-targeted fish were excluded) and reduced wear and damage to the gear.

The co-operative also benefited from the reduction in the volume of low revenue product consignments to the domestic market.

9.5 Continuous Improvement

With their own first hand experiences as a guide, and immediate rewards as the incentive, those members involved soon understood the broader significance of the changes they had made to the overall benefit of themselves and the co-operative. This encouraged a continuous review of the existing systems at sea and at the co-operative, to see where additional improvements might be made, and to identify any weak links which might threaten the new profitability.

This holistic view of the various changes enabled many people involved to visualise a broader scheme, and the systematic approach to reviewing and modifying operations soon begged the question - What do we do next? In other words, the process of continuous improvement which was underway, was soon driving the need to establish a more formal plan. Although this had still not been documented at the time of the Case Study, the 'vision' was at least being shared by many of the members, and the concept of a 'grand plan' for the co-operative was certainly ingrained in the emerging culture.

10. MANAGING CULTURAL CHANGE

10.1 The Need

As mentioned in Section 1, the tangible components of the scheme seemed feasible from the outset - hence the decision to proceed. That is, it was predicted that sustainable volumes could be achieved; that special handling and export markets would bring higher returns; and that costs could be cut, resulting in a viable operation. Success, therefore, largely hinged upon some less tangible components: the willingness, discipline and ability of the members, staff and associated organisations involved, to bring about the desired outcome.

This was clearly going to be an on-going process, and one requiring periodic, broad success. In other words, all those in the production and distribution chain would need to 'come up to speed' at the same time, at critical milestones in the Plan's development. The risk was that if a section of those involved rejected the need for a uniform standard of quality in the process, or simply did not have the discipline or skills to assure it, the entire process would break down.

For example, poor on-board handling would be reflected in lower prices despite the best efforts of everyone else along the distribution chain. Apart from the short term losses, this would inevitably lead to an attitude of dissatisfaction and a lack of confidence by all concerned. Equally, the best efforts of fishers would be wasted by poor practices down the line, quickly leading to a lack of confidence in the scheme, and its demise. It was well understood how quickly this could happen as earlier attempts at export marketing had floundered in this way and considerable time and effort had been needed to revive successive attempts, with each failure contributing to a considerable degree of cynicism by some fishers.

The attitudes of a diversity of people involved (the culture) would not only have to change in favour of a positive commitment to the scheme, but this change would have to progress in a way that paralleled the development of the Plan itself. In other words, this cultural change would have to be managed.

10.2 Steering Committee

The formation of the Quality Committee was the first step. Regular meetings of this 'steering committee' reinforced the positive changes happening, progressed the ideas, and communicated both the information and the spirit of the scheme to other members.

10.3 Introducing Key Elements

This was followed by the strategic introduction of key elements of the scheme into the policies and operations of the co-operative. The innovation of the Policy and Procedures manual, the commencement of staff enterprise agreement negotiations, and the progressive introduction of quality controls (prior to the QA program) into the environment of the co-operative, was part of this.

10.4 Publicity

10.4.1 Reinforcing Goals

One of the most effective strategies in managing the cultural change was the use of publicity. The co-operative took every opportunity to reiterate the fundamental concept of the scheme to local news media and trade magazines, and to announce the launching of each new element in the Plan, or innovations introduced along the way.

This public reiteration of the Plan was directed at reinforcing its goals in the minds of participants and to outline some of the detail which might not have been communicated to other members. The effectiveness of this could be measured by the response generated from the publicity - which was mainly positive. Indeed, publicity did much to foster a positive attitude towards the new ideas, and towards the associated changes in the daily working life of members and staff.

10.4.2 Conveying The Big Picture

Publicity has proven to be highly effective in communicating elements of the Plan - probably because it usually provides a snapshot of 'the big picture' and emphasises the positive outcomes in store. Too often, participants are confronted with individual elements of a scheme and, without knowing or understanding the full context and benefits, simply see them as onerous.

The co-operative does not have a means of regular written communication with members, such as a newsletter or regular bulletins. Instead, it depends on annual meetings, occasional extraordinary meetings (for urgent matters of significance), and personal communication with directors and management for day to day news. So publicity has played a very important part in communicating both detail and progress.

10.4.3 Fostering Industry Support

Publicising the plan has also attracted the attention of support schemes and enhanced the prospect of both financial and non-financial assistance. The involvement of SeaQual, for instance, can probably be attributed to this. This national focus may do much to maintain the momentum of cultural change.

10.4.4 The Broader Community

The extent to which attitudes in the broader community have also been affected by the publicity has yet to be determined.

Re-emphasising the scheme's objectives of pro-active sustainable fishing and value-adding (to make the resource go further) and publicising its successes step by step, was certainly designed to influence those community groups concerned about commercial fishing, and to foster the support of local businesses by outlining the significant economic benefits the scheme could bring to the region in terms of employment and revenue.

11. IMPLICATIONS FOR FINS.

The major strategies of the Wallis Lake Plan fall within several planks of the Fishing Industry National Strategy (FINS) - namely, those of Resource Access, Quality, Product Identification and Market Development.

11.1 Resource Access

The issue of Resource Access was clearly one of the most powerful motivations behind the development of the Plan. Under pressure to 'make more money from less fish' the co-operative's members addressed this issue 'head on' by redesigning gear for more selective fishing, by the adoption of internal quotas, and by reducing wastage through improved handling. An unexpected outcome was a reduction in production costs - both for vessels and for the co-operative.

The Wallis Lake example, even at its current early stage of development and implementation, certainly provides evidence that such a strategy can be successful. These efforts might further prove effective in mobilising support for continued (sustainable) fishing in the face of increasing pressure from other waterway users and the local community in general.

11.2 Quality

To increase the value of its product throughput, the co-operative recognised the value adding potential of quality as a product attribute in markets where premiums are paid for this. To meet the strict specifications of these markets, the co-operative also recognised that individual quality controls were inadequate, and was confronted with the task of designing and implementing systematic quality assurance. Given such a daunting and complex task, the co-operative was fortunate to receive guidance from the National Seafood Centre and SeaQual, and to take advantage of the Australian Seafood Quality Assurance Project.

However, the Wallis Lake example also demonstrates how a quality focus in the seafood industry is often export driven. The fact that their Plan incorporates a non-quality assured product stream targeted at the domestic market, clearly reflects a view that adequate reward for quality is not always guaranteed by domestic buyers (if not domestic consumers). Given that consumer surveys rank seafood quality highly as a product attribute, the existence of a large non-quality market segment has implications for the promotion of the value of quality to both buyers and domestic consumers.

11.3 Product Identification

Even prior to the implementation of the QA program, the co-operative sought commercial kudos by publicising details of its Plan and launching a Wallis Lake Quality Assured 'brand' to differentiate product which successfully met its quality criteria.

However, without a national accreditation system in place, or the auditing of quality related branding symbols (as recommended in the FINS), the co-operative is forced to run the risk that its QA 'brand' won't have the credibility in the market place that it deserves. Conversely, the industry runs the risk that the Wallis Lake brand (and others which are sure to emerge in the near future) does not meet nationally accepted criteria.

This is unlikely in the Wallis Lake case as the brand will identify product from an internationally accredited QA process, but the prospect of a flurry of less credible QA brands emerging, brand symbols which are misleading, or marketplace confusion due to the variation in brand meanings or symbols, is one which must be quickly addressed - before the advantage of this is lost.

This issue demonstrates the need for a national product promotion strategy relative to QA branding.

11.4 Market Development

The Wallis Lake Plan certainly demonstrates a shift from production focused planning to more marketing related initiatives. However, this new perspective reveals several areas of concern for the co-operative.

Limited access to marketing research - particularly relating to overseas market trends - leaves future initiatives somewhat in the hands of export agents who are sourcing product locally. (The co-operative does not have the resources to undertake its own foreign marketing research.) For the same reasons, the co-operative's entire export strategy must be vulnerable to a lack of market intelligence - both in terms of market trends and market feed-back. Although Information Flow is a separate plank of the FINS report, clearly the need for this has relevance to the development of markets for Wallis Lake products.

The co-operative also recognises that it will find it difficult to promote its QA and/or export products - in Australia and especially overseas - severely constraining market development. Although this is not an unusual problem for an organisation of this size, it demonstrates the need

for product promotion support - an issue not addressed by recommendations in the FINS.

However, the FINS does focus on the need for export skills training programs and Wallis Lake is very much an example of an organisation which needs this support.