# REPORT ON STRUCTURAL ADJUSTMENT

# IN COMMERCIAL FISHERIES

# IN NEW SOUTH WALES

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# Executive Summary and
# **Findings Against the Terms Of Reference**

Fisheries management presents different challenges than in many other industries because of the community owned nature of the resource, the competitive nature of the operating environment, the diversity of stakeholders, the biological and ecological dynamics and uncertainties involved, and the risk of stock collapse through excessive fishing effort if appropriate management intervention does not occur. It is not surprising therefore, that structural adjustment programs have been in common use across Australian and overseas fisheries in recent years.

Progress has been made by the NSW Government and the commercial fishing industry over the past 15 years to rationalise the size of the NSW commercial fishing fleet. The recent implementation of the new share management arrangements provides a solid basis to build a sustainable and viable fishing industry based on a secure access right and flexible trading arrangements. However, a clear case remains for an accelerated structural adjustment program. The factors supporting the need for a dedicated program in the nominated commercial fisheries include:

- The need to ensure sustainability of fish stocks and the habitats that support them;
- The persistence of an unacceptably high level of effort (both latent and active) and overall fishing capacity confirmed through comprehensive environmental impact assessments and highlighted by the NSW Seafood Industry Advisory Council's objective of eliminating 100% of inactive fishing businesses and 50% of active fishing businesses;
- Lack of a mechanism for industry to autonomously adjust over time in response to the ongoing external pressures affecting the viability of commercial fishing such as operating costs and markets - shares do not presently provide a proportional level of resource access in any of the nominated fisheries;
- Potential for increased fishing pressure in State waters resulting from external programs such as the Federal Government's recent 'Securing Our Fishing Future' business exit scheme;

- The existence of complex regulatory requirements that have built up over many years and act to reduce operational efficiency;
- An ageing, poorly maintained fishing fleet symptomatic of decreasing profitability;
- Strong competition in the market place with catches from other Australian wild harvest fisheries, domestic aquaculture species (e.g. Atlantic salmon) and cheaper imported product which is often caught or cultured in fisheries with less stringent environmental controls.

To help address these issues, the proposed fisheries structural adjustment program in NSW should have the following objectives:

(a) To ensure the ongoing conservation of fish stocks and the environment which supports them;

(b) To maximize long term viability and economic efficiency of commercial fishing operations;

(c) Establish a baseline from which the nominated fisheries will autonomously adjust without the need for repeated government intervention or assistance; and

(d) To ensure the ongoing supply of NSW seafood to consumers.

The study examined a range of options for structural adjustment, including cancelling latent entitlements, issuing a separate 'active' share and substantially increasing minimum shareholding levels. However, the study concluded that the most feasible and cost effective option for achieving the objectives of structural adjustment should incorporate a three step approach, building on the adjustment model previously endorsed by the Seafood Industry Advisory Council, as follows:

**Step 1: Early exit incentive** – this step involves an offer of modest exit grant payments (of around $■ per fishing business up to a budget of $■) targeted towards latent businesses who sell their shares to existing authorised fishers or surrender all of their shares and leave the industry. A latent fishing business is defined as one which. Latent businesses would not be eligible to seek any further exit payments (over and above the market price of their shares when sold) after the offer date expires. The aim of this step is to address the current latent effort problem upfront.

Implementing Step 1 will also help to reduce the allocation of access entitlements to inactive businesses at the time when shares are linked to resource access.

**Step 2: Minimum shareholding requirement** – this step involves implementation of a new requirement for all shareholders to satisfy the existing minimum shareholding level which applies to new entrants in the nominated share management fisheries. The main aim of this step is to promote a level playing field prior to migrating to the new management framework under Step 3. As with Step 1, it will also help to facilitate the allocation of resource access to active businesses.

It is recommended that Steps 1 and 2 operate concurrently so that there are active sellers and buyers of shares during the same period of time. These steps are simple and deliverable and should be finalised within about six months of the announcement of the program by the Government.

**Step 3: Major adjustment process** – this is the major adjustment phase which involves implementation of the following sub-programs:

(i) *the linking of shares to resource access* (i.e. catch or fishing effort) to enable the Government and Industry to directly achieve resource conservation goals;

(ii) *regulatory reform* involving the explicit explanation of future fisheries management policy so that fishers have no doubt about the nature of the post structural adjustment management regime and can therefore make informed decisions whether they wish to stay in the industry or exit. Amongst other things, the regime would encompass the removal of any existing controls that act as unnecessary barriers to efficient commercial fishing operations, the use of vessel monitoring systems across the whole commercial fishing fleet and the implementation of an appropriate pricing and cost recovery framework; and

(iii) *provision of exit grant payments* (of around $■ per fishing business up to a budget of $■) to <u>active</u> businesses who sell all of their shares and leave the industry. This would be a strong incentive for fishers wishing to exit to quickly offload their shares and facilitate an active market for shares during the main adjustment phase.

It is recommended that the whole of Step 3 should be completed within three years of the announcement of the program by the government, with ongoing implementation of the regulatory reforms. This would provide a realistic timeframe to complete Steps 1 and 2 and develop the necessary systems and undertake the detailed consultation required for Step 3.

The study provides specific recommendations regarding how the shares associated with each type of fishing activity could be linked to either catch quotas or effort units. An innovative approach is presented for applying output controls to many of the State's lower value and multi-species fisheries, while avoiding the discarding and high grading problems that are normally associated with quota regimes in these types of fisheries .

With catches and/or fishing effort under firm control within the new framework, greater flexibility can be given to commercial fishers to harvest fish in the most efficient way possible. This means that many of the existing fisheries, share classes and regions can be amalgamated, reducing the total number of share classes from around 105 to around 20, subject to further analysis and industry consultation after Steps 1 and 2. It also means that many of the existing input control regulations which were purposefully designed to constrain fishing operations can be removed.

Successful implementation of the recommended structural adjustment program will create a new and vastly different operating and economic environment for commercial fishers. The total number of fishing businesses would be substantially reduced (in the order of around one third) from the present level of around 1,100 and the burden of overwhelming 'red tape' will be lifted, consistent with the direction forecast in the NSW State Plan. The framework will exist for the market to drive a further reduction in the number of businesses over time to industry's optimal level.

The report includes a range of specific proposals for streamlining and simplifying existing regulation and policy. For example:

- Removing any existing barriers to the trading of shares;
- commercial fishers would no longer be required to complete the paperwork necessary each year to renew fishing boat licences, as they would be abolished;

- nets would no longer be required to be registered; and
- with the aid of some of the latest technology, paper based catch returns need never be completed again by commercial fishers.

More tangible than these benefits are the issues of long term industry security and environmental protection. The new scheme will guarantee commercial fishers a fully tradeable ongoing access right to a share of the State's fish resources. The vastly improved economic opportunities will give operators confidence in their own and their industry's future. The scheme will also engender significantly greater community and government confidence that the publicly owned fish resources of NSW are being harvested in a long term sustainable manner.

With respect to the Inland Restricted Fishery it is recommended that due to the clear and sustained non-viable nature of that fishery, the fishery be permanently closed. The participants should be given the option of taking an agreed exit payment or accepting a new Class E aquaculture permit to harvest yabbies from farm dams and irrigation channels. This should be completed as soon as possible given the situation faced by these fishers.

The study concludes that the overall program cost to the government is likely to be in the order of $■. Industry should also contribute, but is currently limited in its ability to do so. Under the proposed program, industry's contribution will take the form of self-funded adjustment, with the remaining fishers having to acquire additional shares to achieve economic viability within the new management structure. Importantly, shares will be directly linked to a proportion of a State-wide Total Allowable Catch limit or Total Allowable Effort limit.

The report outlines the key requirements for implementation, including the need for significant legislative amendment, a targeted communication strategy, establishment of an implementation project team, and sufficient resources to establish the necessary legislative, policy, information technology and administrative systems.

The terms of reference recommended by the NSW Seafood Industry Advisory Council for this study sought an outcome which delivered "a positive business environment that promotes efficient fish production, business specialisation and proficiency, business economies of scale, a confident investment climate, employment opportunities, efficient administration, and a fair opportunity for those who wish to exit the industry to do so."

In response to the specific terms of reference, the study found as follows:

Term of reference 1 : Identify and describe the potential opportunities, long term benefits and any other major implications for industry and government of an effective structural adjustment and regulatory reform program.

Finding

The implementation of the recommended adjustment program outlined in this Report will achieve the joint aims of resource sustainability and improved profitability for the commercial sector. The fact that share management has now been implemented in all of the nominated fisheries which are the subject of this study means that a mechanism now exists which will readily facilitate structural adjustment over time.

A necessary part of the recommended program therefore will involve the widespread aggregation of existing share classes into a much smaller number. The report describes how this could be achieved. This in turn should help address much of the regulatory complexity which presently impedes economic efficiency in the commercial sector and which is also an ongoing burden to the regulator, DPI, in terms of administrative processes and the most efficient use of its resources. The challenge is to simplify regulation to ensure efficient and effective fisheries management at a responsible cost, without compromising outcomes.

The recommended structural adjustment program aims to realise the following opportunities and benefits:

- Resource sustainability - improved conservation of fish stocks and the environment/habitat which sustains them through a reduced number of operators and a direct control on catch and fishing effort which can be adjusted over time in response to resource condition;

- Economic - significantly enhance the opportunity for industry profitability and long term viability; provide a mechanism for business owners to better structure their businesses to withstand the ongoing changes in market conditions, fish stock levels and operating costs; rationalization of the number of share classes; providing greater operational flexibility due to the removal of existing fishery boundaries and superfluous regulatory controls; removal of inactive and part-time marginal fishing businesses; efficiency gains for DPI with flow on benefits to fisheries management, compliance and research programs; removal of excess economic resources (e.g. too many fishing vessels) and their redirection to alternative uses where possible; a more optimistic future for fishing business owners looking at opportunities to market premium high quality fresh fish product or value add; better return to government through the imposition of an appropriate pricing and cost recovery framework;
- Social - greater confidence in fisheries management arrangements; reduced conflict between the various fishing sectors seeking access to the State's fisheries resources.

In terms of major implications for the commercial fishing sector, the following issues have been identified:

- Although there will be a reduction in the number of vessels and the overall fleet size in a number of individual fisheries, there is unlikely to be adverse flow on effects to other fisheries, as the recommended adjustment program will mitigate any adverse consequences, ie. the program will remove whole fishing businesses and thereby prevent concentration of fishing effort into localised areas or fisheries;
- The issue of displaced crew as a result of adjustment does not appear to be a problem. As it is, fishing businesses have been experiencing considerable difficulty in attracting and retaining skilled crews simply because of labour market competition elsewhere such as in the mining industry;
- Fishermen's cooperatives will be affected via a reduction in the number of their members and possibly throughput (if overall catch reductions are required for sustainability). In the case of the Sydney Fish Market, it may be affected by a drop in throughput (if needed for sustainability) and through any rationalisation which occurs in fisherman's cooperatives along the NSW coast. However, with the exception of one or two

cooperatives which appear to be viable in their own right, it is important that the others plan ahead, including looking at options for mergers and updating their facilities. A separate study may in fact be needed to identify not only what impact the recommended structural adjustment program will have on the post harvest sector, but also what changes need to occur to achieve a rationalisation of this sector – a sector which is essential to viability of commercial fishing businesses. It should be noted that the recommended linking of shares to resource access would provide a mechanism for post harvest operators to acquire shares and thus secure ongoing supply;

- With respect to fish processing capability, supply of product will continue to be determined on the basis of sustainability criteria. However, with fewer and more committed and professional fishing businesses, there should be a better focus on quality control, thereby improving the returns on fish sold.

Term of reference 2 : Identify the potential costs of implementing:

- A pilot structural adjustment program for the priority fisheries identified by SIAC, and
- An overall structural adjustment program for all of the subject fisheries using
  - the broad adjustment approach previously recommended by SIAC, and
  - any feasible supplementary or alternative processes.

Finding

The original intention of the pilot adjustment program was to achieve small sections of adjustment at a time using the limited resources available. However, following consideration of the pros and cons of each strategy, it is clear that greater certainty would be achieved by implementing a three step approach across all fisheries. This recognises that there are inherent difficulties in implementing an adjustment program in one of the nominated fisheries without affecting business operations in other related fisheries, given the diversity of business shareholdings. In addition, there would be economies of scale in implementation of a whole-package approach for all parties.

The recommended three step adjustment program and the proposed arrangements for the Inland Restricted Fishery are set out above, as is the estimated cost of the program to government.

Term of reference 3 : Describe any requirements that might be necessary to stage the development and implementation of a pilot or overall structural adjustment and regulatory reform program

Finding

Implementation requirements are set out in the report. The key requirements are as follows:

- legislative change - amendments will be required to the Fisheries Management Act and associated Regulations, especially the existing share management plans;
- formation of an implementation project team;
- development of a targeted communication strategy; and
- provision of adequate resources to further develop and implement the recommendations of this report.

The reform program needs to be accompanied by a commitment from industry to seize the opportunities the above changes present, such as by improving the business skills of fishers. The industry should also access existing Federal and State Government programs designed to improve the skills base of the workforce (apprenticeships and similar programs) and promotion of quality seafood supply.

## 1. Introduction

The NSW Government has a strong policy and legislative focus on ensuring that the harvest from wild fisheries is ecologically sustainable and contributes to the NSW economy. Maintaining and improving the management and use of New South Wales' fish stocks and the aquatic habitat which supports them, is also a key strategy for the Department of Primary Industries (DPI). Such a strategy is a prerequisite to ensuring the sustainability of the State's fisheries well into the future. The community itself also has a real interest in seeing its fisheries resources managed on an ecosystem basis to ensure sustainability and an ongoing supply of fresh local seafood to consumers.

This report sets out the factors which need to be taken into account in pursuing structural adjustment in fisheries, makes the case for a structural adjustment program for the nominated share management and restricted fisheries in NSW, proposes a set of objectives for structural adjustment and recommends a preferred approach to achieving those objectives.

## 2. Background

In December 2005, a Report on the Performance of Fisheries Management in NSW was prepared for the Director-General of the New South Wales Department of Primary Industries (DPI). Amongst other things, that Report recommended the following:

"A Structural Adjustment Program for nominated commercial fisheries with capacity problems be developed and implemented in 2006. The Program agreed should build on the existing work of the SIAC (NSW Seafood Industry Advisory Council) Working Group, be adequately resourced from a number of sources, and address Latent Fishing Effort, overcapacity in the existing fleet, and necessary changes to share management to accommodate autonomous adjustment."

During 2005, SIAC was already in the process of considering structural adjustment, with the first of a series of meetings being held on 7 October 2005 between SIAC and ACoRF (the Advisory Committee on Recreational Fishing) to discuss "matters of mutual interest between the commercial and

recreational sectors" relating to structural adjustment. A SIAC Structural Adjustment Working Group meeting on 28 October 2005 with the NSW Rural Adjustment Authority followed up this meeting. This meeting was designed to further progress the consideration of a structural adjustment program for NSW commercial fisheries.

Additional meetings were held throughout 2006 and 2007, one of which resulted in the establishment by SIAC of dedicated subcommittees to progress consideration of structural adjustment. A review of the minuted outcomes from all of these meetings indicates that significant progress was being made. For example, SIAC had firstly, recommended specific adjustment targets of removing 100% of latent fishing businesses and 50% of active fishing businesses using shares as the preferred mechanism, secondly, recommended a preferred approach to structural adjustment and, thirdly, drafted the terms of reference against which this present study will report (Appendix 1).

The terms of reference incorporate a component relating to a regulatory reform program. This is consistent with the 2205 Report on the Performance of Fisheries Management in NSW which made specific recommendations regarding the present administrative processes and the need for a review of all regulations "with a view to removing those regulations which can no longer be justified or serve any useful purpose". That Report went on to say:

> "It should be noted that the level of regulation which can be removed would be contingent on the adjustment mechanisms built into the share management arrangements"

Accordingly, Chapters 8 and 9 of this study address the regulatory reform aspect of the terms of reference as it relates to facilitating structural adjustment.

Finally, the NSW commercial fishing sector obviously has a keen interest in the outcomes from this project, and accordingly, a number of opportunities were provided for fishing business owners, MAC representatives and SIAC to submit their views at the commencement of the project as follows:

(a) the NSW Minister for Primary Industries, Hon Ian Macdonald, wrote to all commercial fishing business owners on 26 July 2007

inviting them "to channel any views you may have about adjustment issues in these (nominated) fisheries to Mr Stevens through your relevant Management Advisory Committee representatives";

(b) The Chairperson of SIAC, Mr Hans Heilpern, wrote to all SIAC members on 24 July 2007 seeking comments on a series of questions on commercial fisheries structural adjustment;

(c) Mr Heilpern also wrote to the members of the SIAC Liaison Committee at the same time seeking their input to the same set of questions; and

(d) A meeting was convened with the SIAC Liaison Committee on 3 August 2007 to discuss first hand industry's views on that same set of questions. Appendix 2 sets out the responses to those questions.

In response to the invitations for people to provide input, a small number of fishers provided brief comments through the SIAC process and direct to the author via email. These have been taken into account in the study.

A further meeting was held with the SIAC Liaison Committee on 17 September 2007 to report on progress with this study and general support was shown for the thrust of the recommendations.

## 3. Structural Adjustment in Commercial Fisheries

Fisheries management presents different challenges than in many other industries because of the community owned nature of the resource, the competitive nature of the operating environment, the diversity of stakeholders, the biological and ecological dynamics and uncertainties involved, and the risk of stock collapse if appropriate management intervention does not occur. A related factor is the increasing public scrutiny of the environmental performance of fisheries, and the need to address community perceptions of impacts. It is not surprising therefore, that structural adjustment programs have been in common use across Australian and overseas fisheries in recent years.

The major factor inhibiting progressive fisheries management in most Australian fisheries today is substantial excess (latent and active) fishing

capacity. The issue of overcapacity revolves around too many fishers chasing too few fish and the need to recognise continuing improvement in fishing technology – in electronic aids, in net design and in boats themselves – technology which has enabled the industry to improve its effectiveness in catching fish within defined input controls, but which adds another dimension to fishing capacity.

This overcapacity in established fisheries threatens sustainability through over exploitation of certain fish species and declining profitability for the fishers involved. Dealing with overcapacity remains one of the most pressing challenges for fisheries managers and industry.

Restructuring in fisheries needs to be recognised as a continuing phenomenon and requirement, as it is in all other economic activities. In an ideal world, fisheries management arrangements should provide for restructuring to occur autonomously, without the need for government intervention. Indeed, it is more likely to be effective when this is the case. The need for government intervention and assistance should only arise where the management arrangements do not include mechanisms for structural adjustment to occur naturally, or where such mechanisms do not function effectively.

Another factor bearing on the industry and creating the need for adjustment is the increasing competitiveness of markets. Output from commercial fisheries not only competes against fish from other Australian fisheries, but from imports in an era of globalisation. At the same time, trade liberalisation may also be opening up new and prospective market opportunities overseas, provided the efficiency of the transport and distribution system enables them to be serviced profitably. And finally, fish, and seafood generally, have to compete increasingly to secure their place in the diets of consumers, as tastes and lifestyles change, and other producers promote their products or improve their quality and attractiveness.

In this kind of operating environment, as profitability continues to decline, the need for adjustment becomes more pressing, with licence holders unwilling and unable to exit a fishery due to the falling values of their entitlements, including vessels. Incremental changes are unlikely to yield the

benefits of a more comprehensive restructuring program with a reasonably rapid rate of adjustment, carrying with it the prospect of real benefits to the habitat and the marine environment.

Of course, those individual operators who regularly review their business strategies to take account of the whole range of factors outside their control which affect their ongoing viability should be much better placed to cope with the pressures arising from the normal fluctuations in commercial life. But these operators are the exception, rather than the rule in most commercial fisheries.

Setting clear goals for a structural adjustment program for the commercial fishing sector is a critical issue. Such a program should first and foremost be directed towards ensuring the long-term sustainability of fish stocks. Secondly, the program should provide the framework to restore industry profitability and long-term viability. Once established, the framework should enable industry to withstand the inevitable ongoing changes in market conditions, fish stock levels, government regulations and operating costs.

It is important to avoid the development and implementation of fishery adjustment schemes which only achieve the removal of unproductive resources from a fishery, and which fail to address the inevitable attraction of more resources back into a fishery as profitability picks up, or fishing effort continues to increase as a result of technological improvements, requiring yet a further adjustment program. Apart from addressing the issue of latent effort, it is essential that any adjustment program is linked to a new management approach aimed at preventing the same conditions requiring government intervention from reoccurring. Otherwise, adjustment funding decisions will be subject to criticism down the track as being ineffectual.

Where there is excess fishing capacity as evidenced firstly by a significant number of fishing authorities not being used (latent effort), together with an excess number of active fishing authorities, then it is clearly necessary to address both forms of effort in an adjustment program. The challenge is to ensure that adjustment funds are not spent solely on the removal of latent effort without achieving any of the other goals of adjustment.

An assessment of the current regulatory regime which applies in a fishery is needed to determine whether it is conducive to a structural adjustment program. Past experience in Australia has demonstrated a complexity of rules and regulations covering the operations of commercial fishers, many of which are inhibiting effective management, are costly to administer and do not allow autonomous adjustment to occur. The best test of an effective regulatory regime comes from the OECD criteria for sound regulation which outline that regulation should:

- serve clearly identifiable goals;
- have sound legal and empirical basis;
- have benefits that outweigh the costs;
- minimise costs and distortions;
- promote innovation through market based incentives;
- be clear, simple and practical;
- be consistent with other regulations and policies; and
- be compatible with competition, trade and investment principles.

# 4. The Case for Structural Adjustment in the NSW Commercial Fishing Industry

## 4.1 The need to ensure sustainability of fish stocks

Commercial fisheries in NSW have identified around 90 key species which make a significant contribution to their industry. These species encompass a wide range of life histories from highly fecund and fast growing prawn species, to species of shark with low growth rates and limited reproductive output. There are a handful of species that are known to be overfished (by all harvest sectors - commercial and recreational) including sea garfish and mulloway, where the stock has been so heavily fished that it is most likely that recruitment back to the fishery is suppressed. In other situations, species are growth overfished, where overall production would likely increase if larger individuals were caught (for example redfish, school prawn, eastern king prawn, silver trevally, snapper and yellowtail kingfish). Many other species are considered fully fished, where the current level of commercial

and recreational effort appears to be sustainable. In all cases, the level of fishing effort and catch needs to be carefully monitored and, if necessary, controlled to ensure that overfishing does not occur.

Sustainable harvesting of fisheries therefore requires controls on fishing mortality – that is, the number and size of fish that are harvested by commercial and recreational fisheries. In NSW, there are many controls already in place that are designed to achieve this, such as regulations for legal fishing gears, minimum legal lengths and closures. However, with the exception of the catch quotas on the abalone and lobster fisheries, these controls provide no direct constraint over the total fishing mortality on a species. Additional controls on either total catch and/or effort can provide an effective and transparent instrument to manage fishing mortality and therefore the sustainability of harvested fish in NSW. Furthermore, any reforms such as a structural adjustment program that improve the ability of commercial fishing businesses to be flexible and profitable will enable future changes to be absorbed more readily and with fewer socio-economic consequences.

There is a cost due to fisheries management, and this cost increases in situations such as in NSW where stocks are fully exploited and in some instances, over exploited, and where there is excess fishing capacity. So there is a cost premium on management in NSW that can be reduced by overcoming over capacity and keeping fish stocks in a healthy condition.

Finally, allowing the present access arrangements which involve a large percentage of latent shareholdings, marginal fishing operations and active shareholdings to simply drift along is not tenable; having the prospect of latent fishing effort being able to be activated and potentially damage sustainable and otherwise viable fisheries is simply not an option.

### 4.2 The need to address excess fishing capacity

Since the introduction of restricted fisheries, the total number of fishing businesses in NSW has been reduced progressively from around 2,800 in 1997 to around 1,100 in 2007. Significant achievements have been made in restructuring NSW commercial fisheries to date, for example, through:

- the introduction of restricted fisheries and the use of validated catch history to work out who got an entitlement in each fishery;
- the amalgamation of fishing businesses under the 1994 & 1996 licensing policies;
- the introduction of a unitisation scheme and subsequent amalgamations in the East Coast Trawl Fishery; and
- implementation of transferability requirements for fishing businesses in the estuary general, ocean hauling, ocean trap and line and ocean trawl fisheries.

Additionally, ongoing refinements have been made to various input controls, for example, through restrictions on vessel lengths and gear, fishing closures, total allowable catches for abalone and lobster, minimum legal lengths for specified fish species and daily trip limits.

However, such adjustment methods have been relatively slow and fishing effort in commercial fisheries remains above a level that will ensure sustainability and result in optimal levels of sustainable harvesting and profits. In particular, the high level of latent effort in many fisheries presents an unacceptable risk, and fish stocks will most certainly be adversely affected and returns to fishers eroded, if these entitlements become active under the present management regime.

Importantly for sustainability, comprehensive environmental assessments conducted under the NSW *Environmental Planning and Assessment Act 1979* between 2001 and 2006 for the State's major commercial fisheries clearly demonstrated the pressing need to reduce both latent and active fishing effort. As a result, DPI has been working through the fisheries advisory bodies, including SIAC, to emphasize the absolute priority of addressing the overcapacity issue in commercial fisheries.

The NSW Government has also undertaken a number of programs involving the reallocation of access from commercial to recreational fishing - the creation of Recreational Fishing Havens and Marine Parks - both of which involved the removal of existing fishing businesses. Whilst both of these programs appear to have achieved the government's objectives in relation to marine parks and resource reallocation, neither of them addressed the

underlying fishing effort problem as they merely offset a loss in fishing area previously available to active commercial fishers.

Other external factors, such as the Commonwealth Government's recent Securing Our Fishing Future fisheries adjustment package, are contributing to the need for adjustment in NSW fisheries. In this example, there is significant potential for displacement of fishing effort through previously dual (Commonwealth and State) licensed operators now concentrating all of their fishing effort in State waters.

In some of NSW's commercial fisheries, most notably the trawl sector, there is an ageing, poorly maintained fleet symptomatic of decreasing profitability – examples of overlooking and deferring repair and maintenance work reflects licence holders' decision to effectively run down their capital, resulting in breakdowns occurring more frequently (with consequent OH&S implications) and vessel downtime increasing.

A clear benefit of autonomous adjustment is the incentive it provides the industry to more effectively manage competitive pressures, such as:

- catches from other fishing sectors in Australia, many of which are handled and presented well to both the domestic and export markets;
- domestic aquaculture species such as yellowtail kingfish, barramundi and Atlantic salmon; and
- imported fish particularly from New Zealand and SE Asia such as vannamei prawns and pacific basa.

Whilst increased competition from imports and aquaculture is likely to be a permanent challenge to the NSW domestic seafood industry, a more profitable and well organised industry will be better able to promote itself and its product and therefore deal with this competition.

### 4.3 The need for regulatory reform

The main piece of legislation covering NSW fisheries is the *Fisheries Management Act 1994* which provides the basis for the preparation and implementation of regulations to meet the objectives of the Act, including:

- management arrangements for individual fisheries;

- regulations prescribing matters which apply across all fisheries;
- conditions relating to fishing authorisations; and
- determinations and directions which may apply to individual fisheries or across fisheries.

In examining the principal Act and Regulations, it is clear that the present structure covering the management and regulation of commercial fisheries has evolved over many years and is viewed by all parties as unnecessarily cumbersome, bureaucratic and costly.

It is quite apparent that regulation imposes a cost on the commercial fishing industry through administration, research and compliance costs; more importantly for both the Department and the Government, the cost of administering this regulation is excessive and not conducive to effective and efficient management of the commercial fishing sector.

Of particular relevance to this study is the obstacle to structural adjustment in NSW commercial fisheries presented by the disaggregated management structure, where there are around 105 different classes of shares. It is highly unlikely that so many share markets could operate efficiently – that is, most such markets would be 'thin' in terms of there being few buyers and sellers at any particular time. This situation clearly has the potential to reduce share trading opportunities and stymie structural adjustment. The recommended changes to the management regime in the nominated fisheries set out in Chapter 7 addresses this challenge and also the wider issue of regulatory reform.

### 4.4 Share management as a vehicle for adjustment

The major commercial fisheries in NSW have now (from February 2007) moved to category 1 share management fisheries which provides a secure access right that can be built on to create incentives for industry to improve its viability. In particular, there is now a tool and an opportunity to implement a structural adjustment program which enables effective management of catch and/or effort under a framework that achieves long-term sustainability, viable and efficient fishing operations, reduced social conflict, and which properly utilises the share-based fishing rights system. However, as pointed out above, rationalisation of the present number of

share classes is a necessary prerequisite to using this tool as the mechanism for structural adjustment.

It is clear from discussions with the SIAC Liaison Committee that industry strongly supports a structural adjustment program to bring about: (a) improved sustainability of fish stocks, (b) better economic performance in the commercial sector, and (c) certainty to industry and potential new entrants about the future operating environment. SIAC sees the implementation of share management as the vehicle to achieve much needed structural adjustment.

## 5. Proposed Objectives for a NSW Structural Adjustment Program

An agreed structural adjustment program should aim to achieve the following objectives:

(a) Ensure the ongoing conservation of fish stocks and the environment which supports them;

(b) Maximize long term viability and economic efficiency of commercial fishing operations;

(c) Establish a baseline from which the nominated fisheries will autonomously adjust without the need for repeated government intervention or assistance; and

(d) Ensure the ongoing supply of NSW seafood to consumers.

## 6. Options for Structural Adjustment in the Nominated Fisheries

In considering available options for adjustment, account has been taken of previous discussions by the SIAC Structural Adjustment Working Group and DPI. A brief assessment of the options is set out below:

**6.1 Cancel shares associated with latent endorsements without compensation -** Cancel shares associated with latent effort endorsements (eg. those unused for the last 5 years) without compensation. This involves only the financial cost of administration and could be a relatively quick

process, but might be viewed as a blunt instrument and does not in itself provide confidence that the stated structural adjustment objectives would be met. It is also not possible under the present Act now that final shares have been issued and is contrary to the intent of providing a secure access right in the form of category 1 shares. Additionally, it would be unfair to those operators who qualified for share allocations based on past activity who, for whatever reason, are now unable to fish.

**6.2 Issuing a separate class of share for active endorsements** - Developing a new class of share associated with each endorsement type or fishery and issuing one share wherever the business has demonstrated recent activity. This option would involve limiting persons who do not hold an active share to sell those shares to persons holding active shares. This option is not recommended as issuing a new class of share based on recent catch history would be a costly, lengthy and administratively complex process for industry compared to the alternatives and may represent a constraint on trade.

**6.3 Set price buyout** - packages of shares could be bought out on a voluntary basis paying only a set sum for the associated shares using funds allocated for structural adjustment. This would be an administratively simple and relatively quick process, but does not by itself satisfy the stated objectives for structural adjustment and may act to excessively distort the market value of shares.

**6.4. Competitive tender buyout** - The shares of any fishing businesses that are associated with recently inactive endorsements could be bought out by competitive tender using funds allocated for structural adjustment. Whilst this is a relatively simple process, it is based on entitlement holders voluntarily participating and would therefore be unlikely to remove the required number of entitlements. It also does not, by itself, address the stated structural adjustment objectives.

**6.5 Minimum shareholdings** - In relation to active fishing effort, the key option available under the present legislative framework is to **substantially increase the minimum shareholding** to reduce the number of fishers entitled to operate in each fishery to the levels identified as being

sustainable. However, this approach has a number of problems if used as the key adjustment tool, as follows:

- it does not effectively address sustainability issues in fisheries because the number of operators entitled to fish only loosely relates to the amount of fishing effort exerted by individual operators and the amount of product being harvested;
- once an operator acquires shares in excess of the minimum shareholding, there is no advantage being a larger shareholder, which acts as a disincentive to building and consolidating fishing businesses;
- it would take an inordinate amount of time to achieve the required target effort levels with limited guarantee of success;
- it is likely to come at a substantial cost to the active fishers who wish to remain in the fishery (at a potentially inflated price); and
- it would create uncertainty and be a barrier to stability as commercial fishing business owners will never be certain as to the timing and quantum of any subsequent increase in the minimum shareholding.

Note that the existing minimum shareholding arrangements which have been included in the current share management plans provide a means for achieving some level of initial adjustment and are included in Step 2 of the recommended adjustment program to facilitate implementation of Step 3.

Whilst there are other options which could be considered for reducing active effort, including those considered by SIAC, this report focuses on the broad adjustment approach previously recommended by SIAC and which is the subject of the Terms of Reference for this report.

## 7. Recommended Structural Adjustment Program

The major advantage of the following recommended adjustment program in addition to the obvious resource sustainability benefits, is that it provides a mechanism by which the most efficient fishers can increase their access by acquiring other fishers' shares, whilst at the same time allowing fishers who elect to leave to do so with dignity – one of SIAC's preconditions.

Careful consideration has been given to the development, timing and implementation issues associated with a preferred structural adjustment program. Whilst implementing a single program in one step has attractions, there are clear benefits in implementing the program through three defined steps. This recognises the need to:

- address latent effort issues upfront; and
- develop and communicate the detail of the longer term operating rules to industry prior to the commencement of the major reform process to enable fishers to make the necessary business decisions regarding how they position themselves in the industry or whether they leave fishing all together.

Accordingly, the following three step program is recommended:

### 7.1 Step 1 - Early exit incentive

The first step involves the offer of a modest exit grant payment (of around $■ per fishing business up to a budget of $■) targeted towards latent fishing businesses who sell their shares to existing authorised fishers or surrender all of their shares and leave the industry. A latent fishing business is defined as one which. This would be the only opportunity for latent businesses to qualify for an exit payment, as they would not be eligible to participate in the later Step 3 exit grant phase. Absorption of existing latent shareholdings into active fishing businesses would help to reduce the allocation of access entitlements to inactive businesses at the time when shares are linked to resource access.

To be eligible to receive an exit grant payment, the shares would have to be sold to existing shareholders to ensure that at least one fishing business is removed each time an exit grant is paid. Conditions should also be adopted to ensure that those leaving do not re-enter any harvest sector of the NSW commercial fishing industry for a period of at least five years.

### 7.2 Step 2 - Minimum shareholding requirement

The second step would involve requiring all shareholders in all new category 1 share management fisheries to meet the minimum shareholding requirements

(currently for new entrants) specified in the existing share management plans in order to obtain/retain an endorsement to fish. The aim of this step is to promote a level playing field prior to migrating to the new management framework under Step 3. As with Step 1, consolidation of existing small shareholdings would also help to reduce the allocation of access entitlements to inactive businesses at the time when shares are linked to resource access.

It is recommended that Steps 1 and 2 operate concurrently so that there are active sellers and buyers of shares at the same time. These steps are simple and deliverable and should be finalised within about six months of the announcement of the program by the government. For consistency, the existing requirement for shareholders in the Ocean Trawl and Ocean Trap & Line fisheries to reach the minimum shareholding level within two and a half years should be brought forward.

### 7.3 Step 3 - Major adjustment process

This is the major adjustment phase which incorporates the broad adjustment approach previously recommended by SIAC and involves implementation of the following sub-programs:

(i) **Linking shares to resource access** (i.e. catch or fishing effort). This will enable industry/government to directly achieve resource conservation goals while exposing fishers to a meaningful resource scarcity signal for the first time. It will also enable fishers to modify the size and structure of their businesses over time to suit their own economic circumstances and to respond to the ever-changing external drivers (eg. markets, operating costs, etc.) that affect their operations and profits. Trading of shares/access in the market place over time should refine the number of operators within each sector of the fishery to industry's preferred level, without the need to ramp up minimum shareholding levels over time.

(ii) **Regulatory reform** involving the explicit explanation of future fisheries management policy so that fishers have no doubt about the nature of the post structural adjustment management regime and can therefore make informed decisions whether they wish to stay in the industry or exit. Efficient adjustment can only occur in the presence of certainty. This would include:

- (i) above;
- full implementation of measures (e.g. size limits and gear selectivity changes) required to ensure the long term sustainability of aquatic ecosystems, optimal harvesting of fish stocks with regard to biological and market outcomes, compliance measures (e.g. quota/effort monitoring, mandatory vessel monitoring systems), targeted research and performance monitoring and reporting;
- the removal of any existing regulatory controls that act as an unnecessary barrier to efficient commercial fishing operations and share trading; and
- introduction of an appropriate pricing and cost recovery framework once the major reform process expires, taking account of any efficiencies achieved in the delivery of management, compliance and research services and/or the outsourcing of selected services as a consequence of the adjustment. It is essential that less active fishers pay their share of attributable management costs as it will avoid the prospect of cross subsidy, remove existing incentives for inactive fishers to retain their entitlements for speculative purposes and hence facilitate the transfer of their shares to active fishers.

(iii) **Exit grant payments** to facilitate an active market for shares, particularly during the adjustment phase. The payment of exit grants offered at a level attractive to part-time or otherwise active fishers (of around $■ per fishing business up to a budget of $■) for a limited time would act as a strong incentive for fishers wishing to sell all of their shares to exit the industry. As with Step 1, eligibility for an exit payment would require the shares to be sold to existing shareholders and the business owner to agree not to re-enter the industry for at least five years.

The existence of significant shareholdings held by latent fishing businesses means that any attempt to link shares to catch and/or effort without the three step approach will result in a degree of distortion and initial disruption to active fishers. For instance, the allocation of a biologically sustainable Total Allowable Catch (TAC) or Total Allowable Effort (TAE) would have to

be spread across all shareholders, including shareholders who no longer fish. This means that active fishers may not receive an initial allocation of a size comparable to their recent activity levels. Consequently, such active fishers may need to purchase additional shares in order to maintain or increase their catch in the future. The payments made to fishers upon disposal of all of their shares in Steps 1 and 3 of the proposed program would act to ameliorate this issue by encouraging any remaining shareholdings to be placed on the market during the exit grant period by rewarding those who dispose of all of their shares (via the bonus payment) and applying an appropriate pricing and cost recovery framework to those who do not.

In addition to the exit grant payments, the following supplementary incentives could be added to the program:

1. professional advice grants for fishing and related on-shore businesses to assist these businesses to obtain advice on their long-term financial viability and restructuring options; and
2. a skills accreditation and retraining scheme for fishers who exit.

It is essential that the program has a well-publicised end date. Fishers must understand that the future management regime will be based solely on catch and/or effort controls linked to shareholdings and be under no misunderstanding that the proposed package is their last chance to receive exit assistance.

It is recommended that the whole of Step 3 should be completed within three years of the announcement of the whole 3 Step program by the Government, with ongoing implementation of the regulatory reforms. This would provide a realistic timeframe to complete Steps 1 and 2 and develop the necessary systems and undertake the detailed consultation required for Step 3.

## 8. Regulatory Reform of the Nominated Share Management Fisheries

This section is divided into two parts. The first part provides a brief overview of the existing fisheries structure and the key management

controls that apply. The second part outlines options and recommendations for the new arrangements to apply in each fishery (and generally) to satisfy the structural adjustment objectives, as per Step 3 of the recommended structural adjustment program.

## 8.1 Current fisheries structure and management arrangements

*Estuary General & Ocean Hauling fisheries*

Estuary general and ocean hauling activities are currently divided into two distinct fisheries, even though the majority of ocean hauling operators also hold shares in the Estuary General Fishery and many of the methods used and species targeted are the same.

The Estuary General Fishery incorporates all commercial fishing (other than prawn trawling) in estuaries and hand gathering on ocean beaches. It contains 63 different classes of share, incorporating nine share types throughout seven regions. There is a wide distribution of shareholdings and a generally large number of inactive entitlements in most share classes (see Table 1). There are approx. 630 fishing businesses in total with shareholdings in this fishery.

**Table 1**. Business and share structure in the existing Estuary General Fishery.

| Class of share * | No. of fishing businesses | | | Share allocation method | | | Share range |
|---|---|---|---|---|---|---|---|
| | Total | Active | Inactive | Equal | Scaled | Combination | |
| Handlining & hauling crew | 590 | 237 | 353 | ☐ | ☐ | ☑ | 1 - 250 |
| Category 1 hauling | 140 | 88 | 52 | ☐ | ☐ | ☑ | 1 - 250 |
| Category 2 hauling | 139 | 52 | 87 | ☐ | ☐ | ☑ | 50 - 250 |
| Meshing | 499 | 362 | 137 | ☐ | ☐ | ☑ | 1 - 250 |
| Prawning | 394 | 221 | 173 | ☐ | ☐ | ☑ | 1 - 250 |
| Trapping | 173 | 94 | 79 | ☐ | ☐ | ☑ | 1 - 250 |
| Eel trapping | 176 | 88 | 88 | ☐ | ☐ | ☑ | 25 - 250 |
| Mud crab trapping | 220 | 163 | 57 | ☐ | ☐ | ☑ | 1 - 250 |
| Hand gathering | 103 | 67 | 36 | ☐ | ☐ | ☑ | 1 - 125 |

* = there is a separate class of share for each of the nine share types in each of the seven Estuary General regions

For the netting components of the fishery, the management controls currently include a range of complex net length, mesh size, weight & float, setting time and area based restrictions. All nets used in the fishery are required to be individually registered, with each registration specifying the maximum length of different sections of the net and the mesh dimensions.

For the trapping components of the fishery, in addition to controls on maximum trap dimensions and mesh sizes, the existing regulations provide for blanket limits on the maximum number of traps each fisher is permitted to use. Hand gathering of yabbies, pipis and worms is managed mainly through restrictions on the number of available endorsements and limiting the permitted gear to prevent industrial style harvesting methods. A strict biotoxin monitoring program also applies to commercial pipi harvesting to help protect consumer safety.

As a consequence of the recent environmental assessment process, the Regulations presently restrict the species permitted to be landed within the Estuary General Fishery to a defined list of over 70 species. The large number of species indicates the diversity of methods and areas used throughout the fishery.

The Ocean Hauling Fishery incorporates all commercial net fishing (other than prawn trawling) from ocean beaches and within adjacent ocean waters. Beyond 3 nm from shore, purse seine fishing is managed by the Commonwealth Government as part of the Small Pelagic Fishery. The Ocean Hauling Fishery contains 29 different classes of share, incorporating four

share types throughout seven regions, plus purse seine. There is a wide distribution of shareholdings and a large number of inactive entitlements in some (but not all) share classes (see Table 2). There are approx. 290 fishing businesses in total with shareholdings in this fishery.

**Table 2**. Business and share structure in the existing Ocean Hauling Fishery.

| Class of share * | No. of fishing businesses | | | Share allocation method | | | Share range |
|---|---|---|---|---|---|---|---|
| | Total | Active | Inactive | Equal | Scaled | Combination | |
| General ocean hauling | 280 | 154 | 126 | ☐ | ☐ | ☑ | 1 - 200 |
| Hauling net (general purpose) | 126 | 90 | 36 | ☐ | ☐ | ☑ | 10 - 390 |
| Garfish net (hauling) | 56 | 23 | 33 | ☐ | ☐ | ☑ | 10 - 350 |
| Pilchard, anchovy & bait net (hauling) | 29 | 10 | 19 | ☐ | ☐ | ☑ | 10 - 120 |
| Purse seine | 15 | 13 | 2 | ☐ | ☐ | ☑ | 40 - 540 |

* = there is a separate class of share for each share type in each of the seven Ocean Hauling regions (except purse seine)

As with the Estuary General Fishery, there are detailed specifications relating to the dimensions and use of each net type in the Ocean Hauling Fishery and all nets have to be registered. The other main controls in the Ocean Hauling Fishery include regional zoning rules, temporal and spatial (i.e. beach) closures and rules relating to the capture of target versus byproduct species to prevent a shift in fishing effort onto other, potentially less robust, species.

Fishing in many (but not all) estuaries, as well as all ocean beach netting and garfish netting, is closed on weekends and public holidays to promote harmony with recreational fishers and other waterway users. It should be noted that there is a considerable level of variation in the start and finish times for these closures between estuaries (even those adjacent to one another) which can lead to confusion for commercial fishers, compliance officers and members of the public.

*Estuary Prawn Trawl fishery*

The Estuary Prawn Trawl Fishery incorporates all prawn trawling activities in the three permitted estuaries: the Clarence, Hunter and Hawkesbury Rivers. It contains three different classes of share, a considerable diversity in the shareholding ranges (i.e. a large range in the Clarence River,

a flat shareholding in the Hunter River, and a reasonably small range in the Hawkesbury River) and a significant proportion of inactive entitlements in two share classes (see Table 3). There are approx. 195 fishing businesses in total with shareholdings in this fishery.

**Table 3**. Business and share structure in the existing Estuary Prawn Trawl Fishery.

| Class of share | No. of fishing businesses | | | Share allocation method | | | Share range |
|---|---|---|---|---|---|---|---|
| | Total | Active | Inactive | Equal | Scaled | Combination | |
| Clarence River | 110 | 73 | 37 | ☐ | ☐ | ☑ | 10 - 150 |
| Hunter River | 28 | 23 | 5 | ☑ | ☐ | ☐ | 100 |
| Hawkesbury River | 58 | 40 | 18 | ☐ | ☐ | ☑ | 100 - 150 |

Prawn trawling in each estuary is managed by limiting the number of available endorsements, boat replacement rules, limits on net size and mesh configuration, target and byproduct/bycatch species rules, prawn counts, a mandatory Bycatch Reduction Devices (BRDs) requirement (though there is a large range of permitted BRDs to select from) and weekend and public holiday closures. In the Clarence and Hunter Rivers, a six month seasonal closure applies between June to November (inclusive). The season opening/closing times in the Clarence River are modified on a season-by-season basis subject to trial shots to ensure the prawns are of an appropriate size, using a predetermined criteria. This same concept applies in the Hunter River, although it applies to defined sections of the River so that some parts of the river can be opened while others remain closed.

*Ocean Trawl fishery*

The Ocean Trawl Fishery incorporates all trawling for fish and prawns in ocean waters. It contains four different classes of share, a reasonably wide distribution of shareholdings and a large proportion of inactive entitlements across all share classes (see Table 4). There are approx. 275 fishing businesses in total with shareholdings in this fishery. There is also a closely related Southern Fish Trawl Restricted Fishery which operates in waters south of Barrenjoey Point and within 3 nm from the shoreline.

**Table 4**. Business and share structure in the existing Ocean Trawl Fishery.

| Class of share | No. of fishing businesses | | | Share allocation method | | | Share range |
|---|---|---|---|---|---|---|---|
| | Total | Active | Inactive | Equal | Scaled | Combination | |
| Inshore prawn | 237 | 158 | 79 | ☐ | ☐ | ☑ | 1 - 65 |
| Offshore prawn | 213 | 155 | 58 | ☐ | ☐ | ☑ | 1 - 65 |
| Deepwater prawn | 48 | 15 | 33 | ☐ | ☐ | ☑ | 5 - 47 |
| Fish northern zone | 57 | 29 | 28 | ☐ | ☐ | ☑ | 1 - 65 |

The current management controls include:

- a prawn fishery divided by area into inshore (less than 3 nm) offshore (between 3 nm and 150 fathom depth) and deepwater (greater than 150 fathom depth) sectors;
- a complex unitisation - engine, hull and net unit - regime in the offshore prawn sector (only) which seeks to control the fishing capacity of individual boats;
- mesh size (and soon mesh orientation) specifications to control selectivity of the nets, and mandatory bycatch reduction devices (BRDs);
- a range of area based closures to protect juvenile prawns around the mouths of estuaries (and soon reef closures);
- a range of daily trip limits applying to the fish trawl sector, mainly introduced to uphold the integrity (i.e. by preventing misreporting) in the Commonwealth's South East Scalefish & Shark Fishery (SESSF) quota management system.

Trawling south of Barrenjoey Point and beyond 3 nm is part of the Commonwealth SESSF which is managed predominantly by quota. In the north, the NSW Ocean Trawl Fishery abuts and shares the eastern king prawn resource with a sizeable trawl fishery in Queensland which is managed through a TAE (no. of days) management regime.

The Fishery Management Strategy for the Ocean Trawl Fishery indicates that management of the fishery will be moving into a tradeable days/nights based management regime over the coming years and it is understood that the Ocean Trawl MAC has been a strong supporter of this approach.

*Ocean Trap & Line fishery*

The Ocean Trap & Line Fishery incorporates all forms of line and demersal (bottom-set) trap fishing in ocean waters for a range of commercially valuable species, and the taking of spanner crabs using spanner crab nets (dillies) in ocean waters. It contains six different classes of share, a narrower range of shareholdings than in the other share management fisheries (with the exception of spanner crab northern zone) and a large proportion of inactive entitlements in most share classes (see Table 5). There are approx. 425 fishing businesses in total with shareholdings in this fishery.

**Table 5**. Business and share structure in the existing Ocean Trap & Line Fishery.

| Class of share | No. of fishing businesses | | | Share allocation method | | | Share range |
|---|---|---|---|---|---|---|---|
| | Total | Active | Inactive | Equal | Scaled | Combination | |
| Line fishing western zone | 404 | 272 | 132 | ☐ | ☐ | ☑ | 1 - 50 |
| Line fishing eastern zone | 94 | 65 | 29 | ☐ | ☐ | ☑ | 20 - 40 |
| Demersal fish trap | 239 | 126 | 113 | ☐ | ☐ | ☑ | 1 - 50 |
| Spanner crab northern zone | 46 | 28 | 18 | ☐ | ☑ | ☐ | 5 - 180 |
| Spanner crab southern zone | 9 | 6 | 3 | ☐ | ☐ | ☑ | 25 - 40 |
| School & gummy shark | 26 | 20 | 6 | ☐ | ☐ | ☑ | 20 - 40 |

The line sector of the fishery is managed mainly by limiting the number of available endorsements, although the figures indicate that there is a substantial level of latent effort in that sector. There have historically been limits on the number of lines (max. 10) and hooks (max. 6 per line) used in waters within 3 nautical miles from shore, but no gear limits in offshore waters. The trap sector is also managed predominantly through endorsement numbers, although there are limits on trap size and mesh dimensions.

New controls are in the process of being introduced under the Fishery Management Strategy which will set a maximum number of traps and hooks that can be used per fisher. There is no evidence that these limits will effectively limit fishing effort in the fishery as some fishers reportedly catch a greater amount of fish using 10-15 traps than other fishers using 30 or more traps, and this concept is likely to apply equally to the line fishing

methods. It indicates that fisher skill and experience is likely to be an important factor in catchability in this fishery.

Boat replacement rules which prevent large scale increases in boat length have been relied upon to constrain fishing effort in the fishery on the precept that larger boats have a greater fishing capacity because they can generally carry more fishing gear, work in rougher weather and stay at sea for longer periods of time. There is also a distinction between boats that are (and are not) currently permitted to fish beyond 3 nautical miles from shore - ie. 'OG1 authorisations' were allocated to boats that immediately prior to the signing of the Offshore Constitutional Settlement were licensed to fish in Commonwealth waters, thus giving them continued access to waters beyond 3 nautical miles.

There are also some restrictions on the species that can be landed to prevent inshore line fishers from straying east and catching deepwater species if they do not also hold a line fishing eastern zone endorsement.

With respect to the spanner crab sector of the fishery, it is currently divided into two zones with the northern zone being the primary area and the southern zone being a developmental area located at the southern edge of the species' distribution. The current spanner crab management regime in NSW relies on endorsement numbers, seasonal closures to protect spawning aggregations, boat replacement rules and limits on the number, size and mesh configuration of dillies.

The Ocean Trap and Line Fishery Management Strategy forecasts a move to direct catch quota management for spanner crabs, consistent with the adjacent and much larger Queensland fishery. A change to catch quota is supported by the majority of spanner crab fishers. It is noteworthy that the northern zone share class is the only class where the shares have been issued solely on the basis of validated catch history, without a base level.

### 8.2 Recommended new structure and arrangements

The critical components involved in developing the recommended framework are:

1. Determining the appropriate link between the primary access entitlement (i.e. shares) and resource access for each activity, in order to facilitate autonomous adjustment;
2. Determining how the existing fishery and share structures should be modified to fit within the new 'linked' framework determined in point 1 above; and
3. Identifying any specific parts of the rules and regulations that can be streamlined or removed entirely to promote economically efficient operations (as per Step 3).

***Linking shares to resource access***

While output controls are the most efficient management framework, the multi-species nature of the nominated NSW fisheries renders individual species catch quotas ineffective for many species due to high grading/discarding problems. Where output controls are not appropriate, it is essential that appropriate effort proxies be linked to shares such that sustainability can be achieved by indirectly controlling output whilst giving fishers strong incentives to restructure through share trading. Any effort proxies used should reflect the primary form of effort control for the fishery in question.

There are a range of options for linking shares to catch or fishing effort and the key options are included in Table 6 with a brief assessment of their pros and cons. Note that a general description of the 'fish points' system can be found in Appendix 3.

In selecting the options best suited to the fisheries of NSW, one must be mindful of the need to minimise the initial and ongoing administrative burden/costs to government and industry. Substantial economies of scale could be expected by limiting the key management methodologies to only a few overall, compared with the potentially high cost and increased complexity that would flow if a different form of control was selected for each form of fishing activity.

The recommended means of linking shares to access for the different classes of commercial fishing in NSW are listed in Table 7.

Under this framework, a Total Allowable Catch (TAC) or Total Allowable Effort (TAE) limit would be set for each activity and allocated to shareholders in direct proportion to shareholdings, thus providing government with an effective and efficient way of controlling harvest levels and the community with a high level of confidence that the publicly owned resources are being sustainability managed.

The TAC/TAE should be set and periodically reviewed by the independent TAC Setting and Review Committee (established under the Fisheries Management Act) so that it is not unduly influenced by sectoral (e.g. industry, conservation or other) lobbying pressure.

The level of stock assessment needed should be tuned to the value of the fishery and the biological risks, as it is done now. Industry could however, choose to invest in further management, research and compliance programs with a view to reducing the uncertainties in the TAC/TAE assessment process and therefore placing a less precautionary influence on the determination.

There are also a number of species which might lend themselves to being managed through an individual species catch quota as they are of higher value, attract some concerns about the sustainability of current harvest levels and tend to be caught in the absence of a large mix of other species. These are pipis, mud crabs, eels, garfish and pilchards. The decision about whether an individual species quota system should be applied to these species (or indeed any other species) will require a subsequent assessment of the relative additional costs of managing them in this way compared to managing them as part of a 'fish points' or 'number of operators' approach.

**Table 6**. Options for linking shares to resource access.

| What shares could be linked to | Brief description of option | Pros | Cons |
|---|---|---|---|
| **Individual species catch quota based on weight of harvest** (direct control) | The shares would be linked to a direct catch quota for an individual species, such as currently done with abalone and lobster | • Well suited to high value, single species fisheries<br>• High level of confidence in resource conservation (provided there is no discarding or high grading problem)<br>• Enables ongoing autonomous adjustment | • Requires sophisticated catch and quota monitoring system<br>• Creates discarding and high grading incentives in multi-species fisheries |
| **Basket species catch quota based on relative species value 'fish points'** (direct control) | The shares would be linked to a general catch limit that would apply across a range (or basket) of species. Refer to Appendix 3 for a description of this option | • Well suited to multi-species fisheries as it removes the incentive to discard or high grade product<br>• Provides a means of shifting fishing effort between species using pricing incentives<br>• Enables ongoing autonomous adjustment | • Requires sophisticated catch and quota monitoring system<br>• While limiting the fishery's total catch level, it needs backup options to guarantee sustainability of individual species |
| **The number of days/nights fishing** (indirect control) | The shares would be linked to the number of days/nights that the shareholder could fish using that method | • Well suited to fisheries comprising species with highly variable abundance (eg. prawns)<br>• Relatively easy to monitor and enforce<br>• Enables ongoing autonomous adjustment | • Not suited to fishing methods that involve soak time (such as trap or line fisheries)<br>• Number of days/nights fish does not necessarily relate to output |
| **The amount or size of gear used** (indirect control) | The shares would be linked to the number or size of gear units able to be used (e.g. trap or hook numbers, net length, etc.) | • Enables ongoing autonomous adjustment | • Assessment needed of the compliance requirements (i.e. would it require a significant and ongoing on-the-ground compliance effort?)<br>• Number of deployments or length of gear does not necessarily relate to output<br>• No easy means of shifting effort away from species of concern |
| **The number of fishers operating** (indirect control) | The shares would be linked to the number of fishers authorised to fish, using the minimum shareholding tool | • Well suited to low value, low volume fisheries<br>• Cheapest form of control to implement, monitor and enforce | • Limits autonomous adjustment because once the minimum entry level is reached, ongoing access to the resource is not proportional<br>• Minimum shareholding levels would need to be raised considerably in most fisheries to have any effect on limiting active fishing effort (ie. the number of fishers operating is very loosely related to catch)<br>• Number of operators does not necessarily relate to output |

**Table 7**. Recommended methods for linking catch or effort in the nominated NSW commercial fishing activities.

| Fishing activity | Individual species catch quota | Basket species catch quota 'Fish Points' | Number of days/ nights | Amount or size of gear used | Number of fishers operating |
|---|---|---|---|---|---|
| Ocean fish trawl | | ✓ | | | |
| Ocean prawn trawl | | | ✓ | | |
| Estuary prawn trawl | | | ✓ | | |
| Estuary prawning | | | ✓ | | |
| Estuary general * (except prawning) | | ✓ | | | |
| Ocean hauling (except purse seine) | | ✓ | | | |
| Ocean purse seine | | ✓ | | | |
| Hand gathering | | | | | ✓ |
| Ocean trap and line (except spanner crab) | | ✓ | | | |
| Spanner crab | ✓ | | | | |

* There may be a case for considering the amount or size of gear used in the estuary general activities - this requires further discussion with stakeholders noting the need to avoid building in unnecessary complexity and cost.

### *Modifying the existing fishery/share structure*

Under the recommended adjustment approach, catch and/or fishing effort is well controlled and greater flexibility can therefore be given to fishers to harvest fish in the most efficient way possible, particularly catching the same or similar species across areas and methods.

This means that the present tight partitioning of fishing activities resulting from the application of an extensive range of share classes and endorsement types can be relaxed. The current fishery and share structure encompasses a total of about 105 different classes, meaning that in practice the same number of separate limited access schemes are operating. This cannot be sustained from an operational or administrative efficiency viewpoint.

There are reasons however, such as those listed below, as to why a limit on the number of fishers using certain fishing techniques will need to be retained:

- to ensure that fishers do not all gravitate towards using fishing methods that have larger environmental impacts (in relative terms) than others;
- to ensure the resource is shared appropriately between commercial fishers and with other harvest sectors, such as recreational fishers;
- to avoid social problems that can arise from: (i) the excessive use of some gear types (eg. the perception of the community surrounding the use of hauling nets, excessive numbers of traps becoming a navigational issue for other boating users, etc.) or (ii) fishers traveling well beyond their home locations to fish - as occurred in the ocean haul fishery in the early 1990s.

To achieve efficiencies in administration and simplify the regulatory regime, it would be prudent to redesign the State's fisheries under a new framework according to the main management methodologies. This way, the complexity (both legislative and administrative) of applying two or more management methodologies within the one fishery can be avoided.

A proposed option for a new fishery/share class structure is set out in Table 8 which would reduce the total number of share classes from 105 to around 20 in the nominated fisheries. The proposal alone to refine the zoning arrangements applying to the existing ocean hauling and estuary general fisheries from seven regions to three regions would remove 36 share classes.

Other options for merging fisheries and/or share classes could be considered and worked through with the key industry advisory groups (i.e. merging more or less fisheries/share classes), including whether merges could be staged in over time. It needs to be recognised, however, that the more share classes in place and the staging of any merges over time, the more complex and costly (for industry) the future regime will be. It would be prudent to make the final decision relating to the future fishery/share class structure after Steps 1 and 2, once it is known how many business have exited in the initial steps and confidence builds in the future direction.

It is important to recognise that key decisions will need to be taken on the methodology for translating existing shares and share classes into the new framework.

***Recommended regulatory changes applying to specific fisheries***

Because catch and/or fishing effort will be well controlled, many of the current rules and regulations designed to make fishing less efficient (ie. to indirectly constrain total harvest levels) or which unduly constrain efficiency can be streamlined or removed.

Note that while streamlining and standardising all gear rules is a positive aim, many of the detailed regulations in place to manage the selectivity of fishing gear (for the retained species) and to minimise bycatch levels will need to be retained.

An initial review of the existing policy and regulatory arrangements has identified the following possibilities for refining the controls. A full review should be undertaken to determine any other input controls which could be removed given the new fisheries management arrangements.

*Estuary general and ocean hauling*

- Remove the requirement to register individual nets as it is unnecessary provided standard maximum dimensions are in place;
- Increase the 500 m cap on the length of hauling nets in the large coastal lakes to 725 m (equivalent to the length of a standard meshing net);
- Standardise the weekend/public holiday closure times wherever possible across estuaries and regions to remove the present confusion and complexity;
- Remove the defined list of species so that fishers can retain all fish that they would otherwise be lawfully permitted to take.

**Table 8**. Proposed option for new fishery and share class structure.

| New management method/fishery | New share classes | Existing share class(es) to be merged or replaced | Additional recommendations/ comments |
|---|---|---|---|
| Individual species catch quota | Spanner crab | OTL - spanner zone northern zone; spanner crab southern zone | • Joint spanner crab resource assessments should be undertaken with Queensland and a global TAC set, with the NSW allocation distributed in proportion to shareholdings.<br>• There may be scope in future to examine options for the inter-jurisdictional trading of spanner crab quota with the Queensland spanner crab fishery. |
| Basket species catch quota - 'fish points' | Ocean fish trapping & lining | OTL - line fishing western zone; line fishing eastern zone; demersal fish trap; school & gummy shark | • The seven existing estuary general and ocean hauling regions should be merged into three regions (i.e. the existing regions 1-3, 4-5 and 6-7).<br>• The existing EG handlining & hauling crew class of share should be deleted as all endorsement holders should be automatically authorised to undertake those activities without the need for a separate share class and endorsement.<br>• Eel trapping should be limited to estuarine waters only to provide a freshwater refuge area for eels.<br>• There is an opportunity, subject to negotiations with the Commonwealth, to close the grounds south of Barrenjoey Point and inside 3 nautical miles to fish trawling, provided operators who have been validly participating in that area can be migrated into the adjacent Commonwealth SESSF without major disadvantage. |
| | Ocean fish trawling | OT - fish northern zone | |
| | Ocean purse seining | OH - purse seine | |
| | Ocean hauling - with a separate share class for each of three new regions | OH - general ocean hauling; hauling net (general purpose); garfish net (hauling); pilchard, anchovy & bait net (hauling) | |
| | Estuary hauling (except prawning) - with a separate share class for each of three new regions | EG - category 1 hauling | |
| | Estuary meshing (except prawning) - with a separate share class for each of three new regions | EG - category 2 hauling; meshing | |
| | Estuary trapping - with a separate share class for each of three new regions | EG - trapping, eel trapping; mud crab trapping | |

| | | | |
|---|---|---|---|
| Limit on days/nights | Ocean prawn trawl | OT - inshore prawn; offshore prawn; deepwater prawn | • Merging the three ocean prawn trawl share classes would remove the existing spatial boundaries and the associated administrative and compliance costs associated with maintaining them.<br>• Prawn trawling south of Barrenjoey Point and inside 3 nautical miles should be phased out so that the area is eventually closed to <u>all</u> forms of trawling. Existing active operators should be identified and permitted to continue until they leave the industry.<br>• A cross fishery trading regime should be developed so that access to the prawn resource can be traded on the open market. This would provide a mechanism for resolving the long standing resource allocation issue surrounding the commercial harvesting of prawns.<br>• There may be scope in the future to examine options for the inter-jurisdictional trading of days/nights with the Queensland otter trawl fishery. |
| | Estuary prawn trawl (Clarence) | EPT - Clarence River | |
| | Estuary prawn trawl (Hunter) | EPT - Hunter River | |
| | Estuary prawn trawl (Hawkesbury) | EPT - Hawkesbury River | |
| | Estuary prawning - general | EG - prawning | |
| Limit on no. of fishers | Hand gathering | EG - hand gathering | • The relatively high value species in this sector (i.e. pipis and worms) may be suited to an individual species catch quota system. |

*Estuary prawn trawling*

- Remove the incidental catch ratio rules which are complex for fishers, administrators and compliance officers and appear to be relatively ineffective;
- Standardise the weekend closure times with the remaining estuary operations and consider implementing a seasonal closure for the Hawksebury River consistent with the Hunter and Clarence Rivers;

*Ocean trawling*

- Set standard maximum boat length, net headrope length and gear selectivity rules (noting that different standards may need to be applied to the different types of trawl activity - e.g. fish trawling versus coastal prawn trawling versus deepwater prawn trawling);
- Remove the unitisation system for offshore prawn trawl boats, thus removing a significant level of administrative burden for fishers and government;
- Remove controls on engine power which are difficult (if not impossible) to enforce;
- Remove the daily trip limits which apply to a range of trawled finfish species, given the introduction of the basket quota system and the fact that the Commonwealth is requiring all dual licensed operators to carry a vessel monitoring system (VMS) to prevent incidences of catch misreporting (noting some of the limits may need to be retained for resource sustainability reasons);

*Ocean trap and line*

- The former 'OG1 authorisations' placed on fishing boat licences would become irrelevant as boat licences will no longer be required (see following section). This will also provide improved operational flexibility for some ocean trap and line fishers;
- Remove the daily trip limits which apply to a range of finfish species, for the same reasons outlined above regarding ocean trawling.

***Recommended regulatory changes applying to <u>all</u> fisheries***

- Once the three step adjustment program has been implemented, minimum shareholdings should be retained in the long term as a safety net to prevent the erosion of any industry viability gains made through the adjustment package, to reduce administration and compliance costs, and to reduce the risks of black marketing;
- Having standard maximum boat dimensions in each fishery means that there is no need to maintain the requirement for boats to be licensed, provided:
  - boats are still required to be marked as being engaged in commercial fishing (for compliance purposes) and it is an offence if a boat is incorrectly marked; and
  - any increase in fishing capacity that occurs due to boats within the fleet being replaced by larger boats (up to the standard maximum rules) is taken into account when the TAC/TAE is set periodically;
- A vessel monitoring system (VMS) or equivalent system should be applied across all fisheries (including estuary fisheries) to enable efficient and effective compliance of the catch/effort management regimes and improve enforcement capability in respect of closure areas (e.g. juvenile prawn closures, reef closures, marine protected areas, etc.).
- A strong penalty system is needed to provide an effective deterrent to breaches of the TAC/TAE systems. The penalties should involve share forfeiture, with the forfeited shares cancelled so that the remaining fishers benefit through an increased allocation of the TAC/TAE during the next fishing period. Such a penalty system is essential to help safeguard the investment made by operators who wish to build their business by acquiring a larger number of shares and thus gaining greater proportional access to the resource;
- Some of the key gear changes incorporated in the approved Fishery Management Strategies could be brought forward to expedite environmental sustainability requirements, provided they do not unduly affect the efficient harvesting of fish;
- Remove a variety of activies currently authorised by permits issued under section 37 of the Act (e.g. concessional access permits);

- See also section 11.1 for a list of recommended specific legislative changes relating to removing share trading barriers, amongst other things.

# 9. Regulatory Reform of the Inland Restricted Fishery

## 9.1 Background

It is clear that the Inland Restricted Fishery (IRF) is not economically viable now or in the foreseeable future due to a range of natural and human induced factors.

There are 26 commercial fishers in the IRF, of which 21 hold transferable Class A Yabby and Carp endorsements, three hold a transferable Class B Carp endorsement and two hold a non-transferable Class D Carp endorsement. The IRF was formed after the removal of native fin fish from the Inland Commercial fishery in 2001, with approximately 50 percent of fishers accepting a buy out and the remainder accepting Class A endorsements in the IRF.

Over the past ten years, yabby catches peaked at 55 tonnes in 1999 (when there were more fishers involved in the finfish fishery). However, catches have been less than 5 tonnes each year since 2003. The annual gross value of production for yabbies taken by all active IRF fishers in 2006 is estimated at about $20,000.

Over the same period, catches of carp ranged from about 4 tonnes to 114 tonnes, with catches fluctuating around 20 to 40 tonnes since 2003. The annual gross value of production for carp taken by all active IRF fishers in 2006 is estimated at about $9,000.

It is understood that much of the catch of carp, and to a lesser extent yabbies, in some years was taken by one or two operators.

It is therefore not surprising that many operators in the IRF report that they are suffering financial hardship, particularly if they are dependent on their operations in the IRF.

It is also notable that DPI is providing services for the IRF that have an identifiable cost in the order of $100,000 per annum. The unidentified costs of administering a small fishery with the complexity of four endorsement classes and associated regulations are unknown. At the same time, DPI has implemented actions to substantially reduce the charges payable by IRF fishers, and is currently progressing regulatory amendments to authorise the full waiver of certain charges under exceptional circumstances.

While fee relief might assist in the short term, broader consideration must be given to the prospects for the IRF and its operators in the medium to longer term. This matter was discussed at the recent Annual General Meeting for IRF fishers on 31 July 2007 at Balranald. An extract of the draft meeting notes show that the operating environment for the IRF is not favourable to the operation of a viable commercial fishery. That is, viability is determined by a range of key variables that are outside the control of IRF fishers.

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*Extract IRF AGM (31 July 2007)*

- "Climatic conditions, particularly regular flooding, which in recent times have been very unfavourable due to drought and increasingly regulated water flows in inland rivers. Operation of regulated water system impacts on watering and de-watering of key yabby grounds, even when there are substantial rises in river flows;
- Secure and ongoing access via land and water to the full range of fishing grounds – fishers depend on access to a 'portfolio of lakes' given the variability of water and yabby stocks. Note loss of physical access due to DECC buying large properties with lakes for conservation purposes, some landholders deciding to not allow access by land, and potential sale of leaseholds;
- The carp and yabby fishery was arguably only ever an adjunct to the previous inland native finfish fishery, not a viable stand alone fishery for the majority of IRF licence holders;
- Variability of yabby stocks – highly episodic pattern of 'boom/bust' and associated opportunistic fishing;
- Competition for the resource (ie with recreational fishers);
- Longer term climate change and variability;
- Market supply/demand impacts significantly on yabby price:

    - up to $20/kg when yabbies scarce, and drops to as low as $2.50/kg when plentiful;
    - lack of consistency in supply of yabbies prevents establishment of long term marketing strategies, contracts and exports;
- Significant recent decline in carp population partly due to the effort by government to eradicate this pest species.
- Carp prices (reported to be currently around 30cents/kg) and cheaper competition species from coastal beach haul operations."

It is important to note that a substantial number of IRF fishers believe that the IRF is not viable, within the context of the above variables, relatively high transport costs and the NSW Government's closure of inland waters to commercial fishing for native fin fish. They favour a fair buy out scheme to assist them to exit the industry.

However, a small number of fishers have indicated a desire to remain in the fishery, being those who have traditionally fished in a small area with reasonably consistent harvest, fished in irrigation canals or felt that there may be opportunities for high yabby catches in good years.

It is noted that the yabby fisheries operating in some other states are based mainly on farm dams. Similarly, some yabby catches in NSW are taken from private waters by aquaculture permit holders and IRF fishers fishing in irrigation canals.

The carp fishing might remain a small opportunistic activity for a small number of commercial fishers, particularly in freshwaters along the NSW coast given the shorter distances to access potential markets. There might also be market opportunities for commercial fishers to remove carp from specific locations in the inland and along the coast.

## 9.2 Recommended adjustment approach for the Inland Restricted Fishery

Immediate action is warranted to permanently close the fishery. This action would be consistent with the NSW Government's environmental objectives for inland rivers and complement its program to exclude or limit agricultural

activities from key land and water bodies through the purchase of those areas.

If closed, IRF fishers whose commercial fishing authorities would be cancelled should be offered the choice to either:

1. accept a fixed exit payment to assist them to leave the industry; or
2. accept a Class E aquaculture permit authorising the harvest of yabbies from farm dams and irrigation channels (subject to landholder permission). Expanding the Class E permit to include irrigation channels would also be of benefit to the seven or so existing Class E permit holders.

Determining the value of a fair exit payment for IRF fishers to leave the industry is problematic, particularly due to the extremely low catch rates over the last five years. As such, typical business valuation approaches are unlikely to produce any meaningful value.

It is understood that a number of fishers believe that they should be paid $100,000 for the loss of their IRF Class A endorsements, if the fishery is closed. This is largely based on a view that their catch history from the previous commercial fishery for native fin fish should be taken into account in determining any payment.

It is noted that these fishers had an opportunity to accept a buy-out based on their previous history when the native fin fish was closed several years ago, but they chose to continue as carp and yabby only fishers. However, it is also understood that government officials and the fishers who chose to remain appeared to have substantially higher expectations of the potential value of the yabby fishery at the time. Additionally, several fishers have entered the IRF after its establishment.

Under the circumstances, it appears reasonable to draw on the precedent set in other recent NSW buy-outs involving the voluntary surrender of fishing authorities (i.e. marine parks, recreational fishing havens and Sydney Harbour programs) as a general guide in setting the value of an ex gratia payment for the IRF. That is, a baseline payment of around $■ could be offered for Class A endorsements. A lesser payment for Class B and Class D

endorsements would appear to be appropriate, in order to differentiate the value between those and the Class A endorsements.

Higher payments could be offered using the previous buy-out formula, in the few circumstances in which individual fishers are able to demonstrate a higher value based on their personal catches since the formation of the IRF or the price that they paid to purchase their IRF endorsement, subject to a maximum payment cap of around $■.

It is likely that the NSW Government would wish to maintain an opportunity to involve commercial fishers in removing carp from specific locations in inland or coastal waters, in order to complement its broader environmental management objectives and programs. This could be accommodated by offering a limited number of special purpose fishing authorities (e.g. permits). Priority could be given to (former) IRF commercial fishers or commercial fishers who hold shares in the Estuary General Share Management Fishery relevant to the harvest of finfish.

## 10. Options for Funding the Recommended Structural Adjustment Program

Industry has previously indicated a willingness to invest in a structural adjustment program for NSW commercial fisheries. There are two ways in which industry can financially contribute. Firstly, fishers could be required to pay a mandatory levy that could be used to help fund Step 1 (through the initial buy-out of shares) or Step 3 (through the provision of exit grants). This is not supported by SIAC and is not recommended. Secondly, fishers who wish to remain in the industry can be expected to acquire shares in order to maintain or increase their level of access under the future operating rules. This latter approach has several advantages as follows:

- it avoids the administrative cost of levy collection (i.e. the cost of making regulatory change, invoicing, accounting and debt recovery);
- it would be attractive to industry because they would receive a direct benefit for their investment in terms of greater proportional access to the resource.

The government contribution would be provision of the exit grants (for Step 1 - around $■ per fishing business; for Step 3 - around $■ per fishing business; for the Inland Restricted Fishery - a baseline of $■) together with an initial investment in resources needed to implement the recommendations in this report (i.e. to establish the necessary legislative, policy, information technology and administrative systems). The recurrent costs involved in maintaining the systems and base level of resources could be picked up by the beneficiaries as part of the implementation of an appropriate pricing and cost recovery policy.

This one-off initial government investment is an important and worthwhile contribution needed to achieve resource sustainability on behalf of the community and achieve the substantial regulatory reform consistent with the NSW State Plan. By virtue of the development of a system within which industry could autonomously adjust over time, the scheme would remove any future need for the government to intervene using further industry-wide adjustment schemes.

In terms of funding requirements, it is estimated that a total government contribution in the order of $■ would be needed to implement the recommended adjustment program, incorporating:

Step 1 (early exit incentive): up to $■ (capped).

Step 2 (minimum shareholding requirement): opportunity cost.

Step 3 (exit grant component of major adjustment process): up to $■ (capped).

Inland Restricted Fishery: up to $■.

Implementation (see section 11.4): an upfront and one-off investment of around $■ over three years for legislative, policy, communication, administration and IT systems development, plus a recurrent annual commitment of up to $■ until full cost recovery is implemented.

## 11. Implementation

A range of issues need to be considered during the implementation of the recommended structural adjustment program.

### 11.1 Legislative changes

Important changes to the *Fisheries Management Act 1994* will be needed to facilitate the change to the new arrangements and to remove any existing barriers to share trading. The following changes are recommended:

- removing the maximum shareholding provision;
- removing restrictions on foreign ownership, noting that foreign investment control is a Commonwealth responsibility;
- creating the ability to redefine existing share management fisheries and recast share classes and shareholdings without having to offer compensation (provided shareholders receive shares in the new fishery);
- providing for the cancellation of shares that are forfeited as a result of being convicted of a serious fisheries offence. If shares are cancelled, the remaining shareholders will receive a direct benefit when the TAC/TAE is allocated for the next fishing period. This creates an added incentive for peer-reporting of illegal activity;
- requiring fishers to surrender (and then cancel) shares to clear any outstanding debt. This provides a strong incentive for fishers to pay the required commercial fishing charges and reduces the transaction costs associated with standard debt recovery techniques;
- removing the existing requirement for the Minister to have to sell surrendered shares (i.e. surrendered shares can be cancelled) which is an administrative burden with no apparent gain to the fishery or the State; and
- enabling the trading/conversion of shares between fisheries (i.e. to cater for the trading and conversion of prawn shares between sectors).

Significant changes will also be required to the General Regulations (e.g. to remove the requirement for commercial fishing boats to be individually licensed) and to the existing share management plans.

### 11.2 Implementation project team

It is recommended that there be a Structural Adjustment Implementation Project Team comprising an independent Chair, a sub-committee of SIAC, and relevant officers from DPI charged with facilitating the implementation of the program within the target timeframes. The Project Team will be required to report on a regular basis (say, quarterly) to the Minister and Director-General of DPI on progress; NSW DPI would provide the secretariat support and resources for the Project Team to function effectively.

It is also recommended that the administration associated with the exit grant schemes be carried out independently of the fisheries management branch of DPI so that those staff can focus on the necessary programs to ensure successful implementation of the other important tasks (e.g. industry consultation, policy and regulatory development, etc.)

### 11.3 Communication strategy

The implementation of the recommended structural adjustment program will need to be accompanied by a targeted communication strategy directed towards commercial fishing business owners so that it is well understood.

### 11.4 Resourcing implications

The recommendations will require the commitment of resources from the government to ensure sound implementation. In particular, adequate time will be needed to make the necessary preparations for implementation, including possible changes to existing work practices and business processes and the development of new systems. Note that detailed costings would need to be pursued in light of the specifications of each component of the implementation program.

Key resourcing requirements identified to date include:

- Significant amendments to the *Fisheries Management Act 1994* and associated Regulations (including share management plans) which will take considerable time and effort to remodel;

- Modifications or replacement of the existing commercial fisheries information (share register and licensing) system;
- Establishment of an online share exchange to facilitate share transfers during Steps 2 & 3 (i.e. to bring the buyers and sellers of shares together);
- Development and administration of procedures and rules for the Step 1 and Step 3 exit grant schemes;
- A new system will be needed to provide for the (daily) reporting and validation of catches and fishing effort and to allocate, monitor and audit the new regime of quotas, points and effort units (e.g. e-logbooks);
- A new system will be needed to set up and run a VMS (or similar system) across all fisheries which would be used to effectively enforce the selected management methods, fishing closures and marine protected areas;
- Training for fisheries administrators, compliance officers and fishers regarding the new arrangements and systems; and
- Resourcing to support the expansion of the TAC Committee's role, including provision of data and an increased workload for Committee members.

### 11.5 Other issues

There may be a need to reform the existing Management Advisory Committee structure given that it is based on the current fishery structure which will be modified over time if the recommendations included in this report are adopted.

## APPENDIX 1

The full terms of reference for this project are as follows:

"The study is to be conducted in relation to the NSW Estuary General, Estuary Prawn Trawl, Ocean Hauling, Ocean Trawl and Ocean Trap and Line share management fisheries and the Inland Restricted Fishery, with a view to delivering a positive business environment that promotes efficient fish production, business specialisation and proficiency, business economies of scale, a confident investment climate, employment opportunities and efficient administration, and a fair opportunity for those who wish to exit the industry to do so. The study is to:

1. identify and describe the potential opportunities, long term benefits and any other major implications for industry and government of an effective structural adjustment and regulatory reform program;

2. identify the potential costs of implementing:
    i. a pilot structural adjustment program for the priority fisheries identified by SIAC , and
    ii. an overall structural adjustment program for all of the subject fisheries using:
        a. the broad adjustment approach previously recommended by SIAC , and
        b. any feasible supplementary or alternative approaches;

3. describe any requirements that might be necessary to stage the development and implementation of a pilot or overall structural adjustment and regulatory reform program."

## APPENDIX 2

At the meeting held with the SIAC Liaison Committee on 3 August 2007, the SIAC Liaison Committee provided the following responses to a number of key questions relevant to this study:

Question 1 : What are the industry expectations of the project on Structural adjustment

The SIAC Liaison Group members highlighted the following points:

- The industry wants to achieve sustainable fisheries and a profitable business environment;
- Industry wants to see the project identify an appropriate mechanism or mechanisms which can deliver structural adjustment in the State's fisheries, but which allows those who wish to leave to do so with grace and dignity;
- The industry wants the project to indicate what the operating environment will be in 2 years time following agreement on a structural adjustment program;
- The industry wants to see the project emphasise the need for regulatory reform to get rid of many of the redundant, costly and inefficient regulations under which both the industry and DPI (the regulatory authority) have to operate;
- The industry would like to see the devolution or outsourcing of appropriate services presently undertaken by Government considered;
- From the post harvest perspective, there is a need to recognise that land based activities including the viability of fishermen's cooperatives and markets need to be factored into the program.

Question 2 : How far reaching do you want the project to be?

Whatever needs to be done should be done in as short a timeframe as possible – i.e. a comprehensive program in place within 2 years, but recognise the need to have a sound administrative and legislative support system in place for the agreed program. At the same time, the project should aim to identify barriers to investment currently incorporated in existing

regulations. If this means rationalising of the current share/regulatory regime, then this should be recommended in the final report. In response to the term of reference for the project covering a pilot program, industry's clear preference is to focus on a comprehensive program for the nominated fisheries

Question 3 : What's your view about how wide the support for Structural Adjustment is amongst industry?

There is overwhelming industry support in favor of a Structural Adjustment program, and for the program to be implemented ASAP.

Question 4 : Does industry support rationalising the current regulatory environment under which industry operates, including making shares the sole currency for trading in the market place?

The industry view is that there should be one category of trading and that is shares. Industry acknowledges that some historic access arrangements (e.g. net registrations in the Estuary General fishery, boat registrations, OG1 notations) will become redundant as a result. The costs associated (administrative, compliance etc) with maintaining such arrangements do not warrant their continuation, and if fully attributed and cost recovered, would make the continuance of these arrangements valueless.

Question 5 : Is industry prepared to contribute to a Structural Adjustment program, and if so, how?

The Industry's preparedness to contribute is very much linked to the implementation of an effective program, which recognises industry's aspirations as spelt out in questions 1 to 4 above.

If necessary, industry has indicated that it is prepared to contribute cash, by way of a an appropriate mechanism (see SIAC meeting 4 held on 8 December 2005), although cautioning that the cost involved in the administration of any such mechanism can be substantial. Industry advised that if a suitable program is implemented, incorporating incentive arrangements, then

individual commercial fishers will further contribute through share acquisitions, which will enable the market to play its part in achieving structural adjustment.

Question 6 : What do you see as DPI's and the Government's role in a structural adjustment program?

In recognition of the public benefit expected from structural adjustment, (improvement in sustainability and improved industry viability), industry strongly anticipates a contribution from Government to facilitate the program. Industry considers a program with clear goals and objectives in support of sustainability and commercial industry viability will not be achievable without a significant investment from Government, supplemented by the industry contribution and the market place as outlined above.

Industry wants to see an opportunity provided for DPI and Industry to work together in partnership on the implementation of a Structural Adjustment program. The Working Group
suggested that SIAC would be the relevant forum to work with DPI to implement the agreed program. To this end, DPI needs to be properly resourced to ensure that the agreed structural adjustment is implemented in a sound manner. If appropriate, outsourcing of functions in support of the program to be considered.

Question 7 : How does industry feel about minimum shareholdings, opportunities for amalgamation, surrender etc.

Industry does not support continual raising of the minimum shareholdings, but does support the requirement for the current minimum shareholding as approved by SIAC.

Question 8 : What kind of consultation does SIAC wish to see once a structural adjustment program is formulated?

The Liaison Group supported ongoing consultation through SIAC and the MACs.

# APPENDIX 3

**General description of 'fish points' system**

In this system shares would be linked to a quota, but instead of having an individual catch quota for each species, the quota would apply across the range of species caught. The quota per share would be set in terms of a specified number of 'fish points', whereas the amount of quota used per catch would be calculated as the weight of each species caught multiplied by that species' point weighting.

The system would generally operate by:

- Initially setting a total number of points (equivalent to TAC/TAE) per annum based on the total value of the fishery, which are allocated in proportion to shareholdings and can be 'spent' as various species are caught;
- Developing a schedule of 'species points' which are simply determined each year based on relative species market value and can be adjusted (but only slightly) taking account of sustainability concerns of any species. A major benefit of this model over alternative models is that fishers can be encouraged through economic incentives to shift their effort away from targeting vulnerable species or species of concern by adjusting the points up for those species and down for substitute species;
- Discouraging high grading and discarding given that fish of little value would cost relatively little quota under the points system and thus would be worth landing if they are caught (as opposed to discarding them and continuing fishing for a higher value species). It also encourages fishers to maximise the price received for their products.
- Retaining the option to use a strict catch quota on selected species if necessary, suitable and cost-effective (e.g. large sharks) or impose other input controls (eg. closures, size limits) to ensure sustainability.
- While further needs to be undertaken to develop this approach further, a simple hypothetical example of how it could apply to an individual fisher is included below.

The first table demonstrates how the points might be determined, as follows:

1. Each species would be assigned a price weighting (number of points) at the beginning of the season based on its average market value. Price weightings might simply be based on Sydney Fish Market prices, although other methods could be used. The points could be adjusted in response to resource sustainability concerns, but are not in this example;
2. Each share held in the fishery would be allocated a common number of points – say 1000 – that reflect the value of catch that can be landed during the season for each share held. This per share limit is the primary sustainability management tool and, as such, needs to be set annually in such a way as to promote overall resource sustainability. If no sustainability problems were identified at existing fishing levels, the TAC could be set at last year's levels to minimise management costs.

**Example: Points base on price weightings**

| Species | Market value ($/kg) | Species points |
|---|---|---|
| Snapper | 9.50 | 9.50 |
| Morwong | 3.50 | 3.50 |
| Kingfish | 8.00 | 8.00 |
| Bonito | 6.75 | 6.75 |

The second table shows how the system would apply to an individual fisher who holds 100 shares. As each species caught uses up the fisher's points in direct proportion to its market value, there is little incentive to discard low value species – that is, one kilogram of morwong uses up the fisher's points at around one third the rate as one kilogram of snapper and, given that the fisher has already incurred the expense of catching it, they may as well land it. High grading might also be addressed by attaching different market values to different sizes of fish within a species, if such complexity was thought worthwhile.

**Example: Points utilisation for an individual fisher**

| Species | Species points | Weight landed (kg) | Points Utilization |
|---|---|---|---|
| Snapper | 9.50 | 1,000 | 9,500 |
| Morwong | 3.50 | 10,000 | 35,000 |
| Kingfish | 8.00 | 5,000 | 40,000 |
| Bonito | 6.75 | 2,000 | 13,500 |
| Allowable catch for fisher = 100,000 pts (ie. 100 shares @ 1000 pts/share) | | | 98,000 |

## REFERENCES

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