CAN RIGHTS PUT IT RIGHT? INDUSTRY INITIATIVES TO RESOLVE OVERCAPACITY ISSUES.

Observations from a boat deck and a manager's desk.

Daryl R Sykes

New Zealand Rock Lobster Industry Council
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Introduction

I should firstly explain my place in the scheme of things. I am neither a scientist nor an academic, certainly not in terms of any formal qualifications. I am a former inshore commercial fisherman of twenty one seasons experience who made a transition to a further fifteen year career as a fishing industry representative, advocate and bureaucrat.

I live and work in Wellington, New Zealand where I manage a commercial stakeholder organisation servicing the New Zealand rock lobster fisheries and I also undertake numerous consultancy and advisory projects for fishermen, fishing companies, fishing organisations, and government and other agencies in New Zealand, Australia and elsewhere.

I was a successful inshore commercial fisherman – at least in terms of my own (and my bank manager's) expectations – and made several important administrative transitions during my twenty one seasons on the water.

I commenced as a crewman working in an open access regime with a low level of supervision and policing. Then as an owner-operator skipper I went to a limited entry regime that had no stock conservation outcomes because fishery managers chose to restrict the wrong measure of effort; and finally I made the transition to the rights-based regime that is the New Zealand Quota Management System. Henceforth referred to as the QMS. Given that history of participation as a working fisherman I understand the many consequences of those regime implementation decisions, and probably understand them better than those who made the decisions at the time.

As a fishing industry representative and advocate I am marginally less interested in policy than I am in the application of policy. I am less interested in the mechanics of stock assessment models than I am in the assumptions that go into them and the decisions that are informed by them. I lean towards an affinity for the catching sector more than I do for processors and marketers, but I understand the co-dependence of all industry players and the way in which the market can and will influence fishing behaviour.

I look for solutions to problems rather than someone to blame for them and I know from my own extensive experience that well informed industry participants who have a measure of security and certainty in respect of their fishing businesses are capable of timely, pragmatic, effective, and cost effective responses to management challenges.

I also know that regulatory is more effective and enduring than voluntary, but that there are more ways to regulate than to legislate. And for the purposes of this presentation I also highlight my abiding commitment to, and confidence in, credible rights-based frameworks to underpin the sustainable utilisation of marine resources.

How much is enough?

Over-capacity as measured by fishing vessels, gear deployed, days fished, or catches taken may or may not be a problem for fishery managers depending on the circumstances. In situations where landings of target stock and/or associated species mortalities are within sustainable limits despite an apparent over-capacity in regard to vessel numbers or gear deployments then the bureaucratic pursuit of economic efficiency may need to be tempered by the fishing communities' preference for their own perceived and preferred levels of socio-economic comfort.

However in circumstances where open access fishery regimes have contributed to stock declines and economic and/or social catastrophes, over-capacity has to be addressed in a timely and effective manner.

So a basic proposition in my presentation is that any discussion about capacity or over-capacity in the fishing industry must commence with clearly agreed definitions and objectives.

And as you might expect from a New Zealand presenter my commentary is anchored in the utility and application of property rights regimes – and it is co-incidental that in this month of October 2006 New Zealand is currently marking the twentieth anniversary of the implementation of a rights-based fisheries management regime generally referred to as the QMS.

I am reporting on just three examples of fleet and capacity rationalisation driven by commercial rights holders in New Zealand and Australia. There are numerous other examples of collective action by rights holders but these three relate principally to capacity issues. I have selected two examples from inshore fisheries – southern rock lobster and New Zealand abalone (which is *paua*) – and the third is an important distant water fishery in Australia's sub-Antarctic Islands.

The examples are chosen because each has a different background, and a different priority associated with the initiatives that were taken. In fact two were deliberate industry initiatives and one was favourably coincidental to the implementation of rights-based management regime.

Common to all three is that:

i. they involve well specified commercial property rights, and

ii. the initiatives for action were taken by the rights-holders themselves, not imposed by the established fishery management agencies. However those agencies had an equally important role in that they constructed the incentives for collective action.

My presentation is intended to highlight the value of communication, information, understanding, response, cooperation and collaboration at different levels.

I also briefly speculate on what might have happened had the initiatives not been taken and implemented in the manner they were.

The nature of rights

In each example the reductions in fleet numbers and fishing capacity have not been solely the consequence of the allocation of commercial property rights, but those rights have provided a framework within which the commercial operators could act collectively and decisively to adapt to changed environmental, biological and political circumstances.

There are many variations on property rights in sea fisheries – individual transferable catch quotas being but one. In my experience what matters in regard to the expected outcomes of any fisheries property right regime is the quality of the right more than the type of right. For example, if the quality (or perhaps I should more correctly describe it as being the integrity) of commercial property rights is not consistently observed by politicians and bureaucrats in their decision making then the rights will not generate the custodial attitude and long-term responsible behaviour expected and intended of them.

It has been my experience in New Zealand and Australia that where rights-based regimes are deemed to be performing poorly and/or where rights holders are deemed to be behaving badly, it is because their rights are observed in the breach as matter of bureaucratic and political expediency.

For example, it seems to me to be a reasonable expectation that within a rights-based regime there will be an application of market-based transactions to resolve competing interests – say between commercial fishing and amateur fishing – or as a response to changing social and political priorities – such as in the case of the inevitable tension between fishing and marine protection by way of no-take marine reserves.

Unfortunately the New Zealand QMS is now weak in this regard. Market mechanisms are not routinely pursued as resolutions to competing interests and changing preferences in regard to the marine environment. Twenty years on, the rights-based framework remains uncompleted and as a consequence the QMS is too often regarded as no more than a resource allocation mechanism to allow the trade and exchange of fishing opportunity within the commercial sector. To me and to the more than 600 constituents to whom I am accountable, the QMS was intended and expected to be much more than that – much more.

Until some significant policy and operational changes occur within the New Zealand government bureaucracy the full potential of our rights-based fishery management regime – be it biological, economic, cultural or social – cannot be met. Developers and managers of similar rights-based regimes elsewhere, and prospective rights-holders, should learn from our experience.

In many respects the "*Tragedy of the Commons*" is being overtaken by a tragedy of a different sort – one of declining institutional memory and lost opportunity - and I am fearful of the outcome for my industry constituents if the erosion of our individual and collective commercial rights is not soon halted.

Dealing with capacity issues – southern oceans

The HIMI

So to my examples of capacity issues. Two very different fisheries distant from each other had a common problem in that the "footprint" of the two fleets had potential to cause some very significant and adverse environmental damage in very unique eco-systems.

My first example is the Heard Island – McDonald Island (HIMI) toothfish and mackerel icefish fishery. In brief, this fishery is managed by the Commonwealth of Australia through the Australian Fisheries Management Authority (AFMA) under the auspices of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). The fishery is located adjacent to a cluster of sub-Antarctic islands far to the southwest of Western Australia[1], and is a sustainable and economically valuable commercial operation.

Heard Island and McDonald Islands are the only unmodified example of a sub-Antarctic island ecosystem in the world. They provide valuable breeding and feeding areas for many species of marine mammals and birds, while supporting a vast array of endemic invertebrates. They are included on the register of the National Estate and the World Heritage List.

The HIMI commercial fishery is now operated under a system of legislated statutory fishing rights which are conditioned by very prescriptive environmental protection standards. Those standards apply not only to the benthic impacts of fishing but to the potential impacts of fishing vessels and their crews on the extensive and unique seabird population resident on those islands. The greater the numbers of vessels and people actively engaged in the fishing for toothfish and icefish, the greater the potential for adverse impacts on the islands ecosystem.

The quantum of toothfish and mackerel icefish that could be sustainably removed from the fishery was not just a function of fish stock abundance; it was also a function of potential impacts on seabird populations and the ecology of the sub-Antarctic Islands. Even a small fleet of four or five fishing vessels could have a combined impact that would demand a reduction in total allowable catches of the target species, not to sustain fish stocks but to constrain impacts of fishing on the environment.

Limited access to the fishery was previously enabled by a tender process for a fixed number of vessel permits. The conditions imposed on vessel permit owners were both prescriptive and potentially restrictive on the catches that might otherwise be taken. Not all successful applicants for permits managed to get fishing but those who did were successful enough to warrant ongoing Australian Government support for commercial fishing to continue in this unique and ecologically important area. A Government decision to "close the commons" for the fishery left AFMA with

[1] See Annex 1

the challenge as to how the incumbent rights holders might make the transition from a limited entry to a tradeable rights-based regime.

Towards the conclusion of an independent allocation advisory process – to which I was one of three principal consultants – the advisory panel and AFMA managers were presented with an allocation methodology developed by and agreed between the incumbent rights holders, thereby relieving AFMA of any possible legal challenge by disaffected parties had statutory fishing rights been allocated by some other formula.

The vessel permit owners also agreed amongst themselves that they should pool their access rights – which were now to be specified as a proportional share of a scientifically assessed Total Allowable Catch (TAC) for each of the target stocks – and share both the investment in and the returns from a single specialised fishing vessel that had the capacity to operate efficiently and cost effectively in sub-Antarctic waters, thereby reducing the footprint of a target fishing fleet within the ecologically important area around the islands.

There are several critical elements that contributed to this cooperation but in my view the most important of all was the certainty accorded to the commercial participants in the form of their initial and their subsequent property rights. Those rights created a platform from which they could evaluate their individual positions, their future opportunities and their strategic options.

Secure property rights were a catalyst for a successful industry-led solution to two normally vexing fishery management tasks – allocation of access rights and avoiding, remedying or mitigating the effects of fishing on the environment. The participants in this sub-Antarctic fishery also have a special relationship with the Australian Government in policing illegal unreported fishing of toothfish stocks in waters under Australian jurisdiction.

Any other management approach – for example a continuation of temporary periods of limited entry, aggregate catch limits rather than individual vessel limits, and the overly prescriptive environmental standards – would have been discouraging in terms of maximising the economic value that could sustainably be derived from these fisheries resources.

Southern rock lobster- CRA 8

My second example of a beneficial capacity reduction is one which was unexpected, although theoretically predictable in a situation where output controls (individual and aggregate catch limits) were implemented for what had previously been an input control fishery. The Southern rock lobster (CRA 8) fishery in New Zealand is one of nine rock lobster fishery management areas. It is the second largest geographically and currently the largest in terms of TAC.

The first TAC for this fishery was set in April 1990 when New Zealand rock lobster fisheries were brought into the QMS. That TAC was significantly lower than the most recent catches taken from the stock and it was intended that excess capacity would be removed as a consequence. In the fishing season prior to April 1990 there were 210 vessels reporting lobster catches from the southern stock. Further TAC reductions in 1991 and again in 1993 had a significant impact on fleet size and the amount of effort deployed in the fishery. By April 2001 there were less than eighty

vessels reporting catch and by April 2006 there were less than seventy.[2]

The Southern lobster example is interesting for a number of reasons. What is immediately obvious is that fleet restructuring was not a direct consequence of the transition to a rights-based regime; it was driven by the imposition of the reduced TACs. However the catch reductions in concert with the implementation of tradeable property rights provided for a far more orderly and socially (and politically) acceptable capacity reduction than would otherwise have occurred if a TAC had been enforced under the previous limited entry regime.

Therein lays an important characteristic of a credible rights-based management framework – the notion of rights as the currency of restructure and reallocation in situations where overfishing presents potential risk to stocks and to the communities dependent upon them.

Although not obvious at the time during which the CRA 8 fleet restructure was occurring, the subsequent reduction in the size of the industry footprint allowed the industry itself to guide and facilitate the implementation of a management plan to protect and enhance the marine environment immediately adjacent to the Fiordland World Heritage Area.

The fleet restructure and progressive aggregation of rights ownership into a reduced number of increasingly more secure and professional business units has also fostered a number of cooperative ventures including operational codes of practise; fishery data collection programmes; the establishment of an operational management procedure to guide annual catch decisions. Stock abundance in this fishery has increased significantly under the auspices of the management procedure and the mindset of the commercial rights holders has shifted from one of maximising volume to one of maximising value. The notions of custodial attitude, collective action, sustainable utilisation and economic efficiency are being consistently expressed in this rights-based fishery regime.

PAU 7

Likewise in my third example which is small but valuable fishery on the north and east coast of the South Island of New Zealand. The fishery is defined as PAU 7 – *PAU* being the QMS species code for paua (New Zealand abalone). Paua, like southern rock lobster, are high value, low volume fisheries with significant non-commercial participation and with cultural values unique to New Zealand.

Paua fisheries were progressively introduced to the QMS from October 1986. Paua are sessile shellfish and the fishery is prosecuted within a narrow littoral zone to depths of 15 fathoms around most of the New Zealand coastline.

Historically PAU 7 had been a very productive commercial fishery but the effects of the pre-QMS open access regime did not really become apparent until formal stock assessments commenced in

[2] See Annex 2

the early 1990s. The overcapacity issues for the PAU 7 fishery were a stock in decline, uncoordinated commercial exploitation resulting in high fishing related mortalities[3], serial and localised depletion, and an increasing level of unreported illegal removals – fish thieving.

Commercial rights holders acknowledged the stock decline but successfully argued that TAC reductions alone would not bring about a rebuild of the PAU 7 fishery.

They implemented an industry-led harvest strategy which included voluntary catch reductions, effort spreading, capacity reduction and quality in harvest and handling. As increases in stock abundance became evident the commercial rights holders established a system whereby only properly accredited divers (independently trained and audited and accredited to industry-agreed standards) are allowed to commercially harvest the stock.

In essence the accreditation programme provides an assurance to the commercial rights holders (and to Government and the wider community) that only fit and proper persons are allowed to harvest paua. The implied duty of care associated with the allocation and ownership of commercial property rights is therefore manifested in a very strong and effective way.

By accepting the voluntary commercial catch reduction as an alternative to a legislated quota reduction the then Minister of Fisheries created the incentive for commercial rights holders to work cooperatively to rebuild a depleted fishery. The way in which the catch reduction was made provided an absolute guarantee that future increases in stock abundance would accrue directly or indirectly to those who made the greatest sacrifice to rebuild the fishery. That has subsequently proven to be a strong incentive for the collective of PAU 7 commercial rights holders which has developed into one of the best resourced and most pro-active commercial stakeholder organisations in New Zealand. PAU 7 has pioneered industry-funded research and development work into re-seeding the wild paua fishery with aquacultured juvenile stock and has demonstrated wild stock enhancement to be a both biologically and economically robust management option.

In the theoretical construct of an individual tradeable rights regime there should have been no reason for the PAU 7 rights holders to seek an alternative to a legislated TAC reduction – the theory says that a proportional reduction in commercial rights to bring about an increase in abundance should eventually be matched by a proportional increase when stocks had rebuilt. I regard that notion of effort and reward as being another cornerstone characteristic of a credible rights-based regime.

However the theory takes no account of the political nature of policy advice and Ministerial decision making in regard to fish stocks in which there is a strong non-commercial interest. There are many such stocks in New Zealand, a country where the wider community has a strong affinity with and easy access to the sea. We routinely refer to "*shared fisheries*". Many of the operational policy and fisheries management decisions made in regard to shared fisheries highlight the

[3] The range of wounds inflicted on undersized paua discarded by untrained harvesters reduces the ability of paua to right themselves and clamp securely on the reef, and attracts predators. Deep wounds caused significant mortality – 40% over 70 days.

inconsistent application or neglect of rights-based and/or market mechanisms in response to contemporary community expectations and priorities.

However, despite my misgivings about the lost opportunities within the New Zealand QMS sufficient incentives do exist in some fisheries (invariably the high value/low volume stocks, or those which are principally commercial) for commercial rights holders to give expression to the roles and responsibilities anticipated by the theorists and academic observers and political commentators. Just as in the southern rock lobster fishery, the PAU 7 fishery has successfully adjusted capacity in response to changing stock abundance and fishing opportunities and well defined commercial property rights have provided the framework for them to do so.

What constitutes "good" rights and how might they go wrong?

I have placed emphasis on what I call the quality or integrity of property rights in sea fisheries – and the integrity of the legislative and regulatory framework that underpins the regime. But an effective rights regime – effective in the sense that anticipated outcomes are met within an efficient and cost effective administrative framework and reasonable timeframes - requires more than just system design competency. Implementation and maintenance procedures will define the success or otherwise of the chosen system. I have noted the lost opportunities in New Zealand as a consequence of an incomplete rights framework and the failure to invoke market mechanisms to address changing priorities for access and use of marine resources, and I have touched on the value of cooperation and collaboration between industry and management agencies from the outset.

With rights come responsibilities

There are numerous other defaults that can impede or confound anticipated resource management outcomes. One in particular that may be relevant to offshore pelagic fisheries is the administrative separation of ownership rights from harvesting rights and the consequent inability of the owners of fishing rights to effectively supervise and audit their use to ensure compliance with environmental standards. There are many situations in the New Zealand QMS where owners of property rights need to follow the PAU 7 initiative and institute contractual arrangements to ensure that contracted harvesters are "fit and proper persons" to work in selected fisheries.

One recent example is the Auckland Islands squid fishery, to the southeast of New Zealand, where a mixed New Zealand owned or chartered contract trawl fleet has aggravated conservationists and various Government Ministers on account of numerous interactions with and mortalities of seabirds and sea lions. The owners of the squid quota – invariably shore-based investors and fishing companies – gave an assurance to a previous Minister of Fisheries that all vessels would voluntarily deploy tori lines as a seabird mitigation measure.

The Minister decided to accompany an aerial reconnaissance of the fishery and was angered to observe few of the fishing fleet using the mitigation devices. His second response was an attempt to immediately shut down the commercial fishery – something the legislation would not allow in the manner he proposed, but you get the picture.

The rights owners were initially slow to institute and invoke compliance standards in civil contracts with the owners and skippers of the chartered fishing vessels, but the prospect of having the fishery closed was a good incentive to do so

More recently we have seen evidence that chartered foreign trawlers fishing on behalf of domestic quota owners are discarding and failing to report small and damaged Hoki contrary to their obligations under the QMS. Once again it falls to the owners of the Hoki quota to ensure compliance with reporting regulations – ultimately it will be the quantum or the value of their commercial property rights that will be compromised well before any sustainability damage is done to Hoki stocks.

A fishing industry is engaged in the business of food production. That we are in business provides strong incentives for both management agencies and industry participants to make sensible decisions. Commercial rights-holders must properly understand the nature of their rights and make a number of fundamental adjustments to the way in which they do business if they wish to preserve the utility and value of their investment in sea fisheries. In order to do so they must be provided with sufficient information on which to make well informed business decisions and properly understand the new roles and responsibilities vested in them as rights holders. And the established management agencies must be willing to progressively surrender some or all of the command and control mentality that is invariably a hallmark of historical administrative management regimes.

Property rights in sea fisheries will invoke custodial attitudes and responsible fishing behaviour in situations where the incumbent participants contribute to and are involved in the design and implementation of the rights-based regime. The reasons for change must be credible – for many fishermen the status quo is at least a comfort zone, despite not being a particularly profitable one – and the system design that is offered as the incentive for industry to support a transition to output controls and tradeable rights must be implemented as it was negotiated and agreed between the parties, not watered down by a failure of translation in regulatory and legislative drafting, or by last minute back room operational policy changes within management agencies.

I consider fisheries management to be a partnership and collaboration between Government agencies and extractive users. Worldwide I see no real evidence of managing wild fisheries stocks – what I see are attempts to manage fishing, some far more successful than others. In order to manage fishing it is necessary to understand and respect those who fish, especially those engaged in the business of fishing on whatever scale, and it is equally necessary for them to understand and respect those who seek to manage their fishing behaviour.

Information, communication, cooperation, and collaboration within a credible and secure rights-based framework will produce benefits – environmental, biological, economic, social and cultural. Reliance on the more traditional command and control relationship with the fishing industry will devalue rather than add value to those outcomes.

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Annex 1:

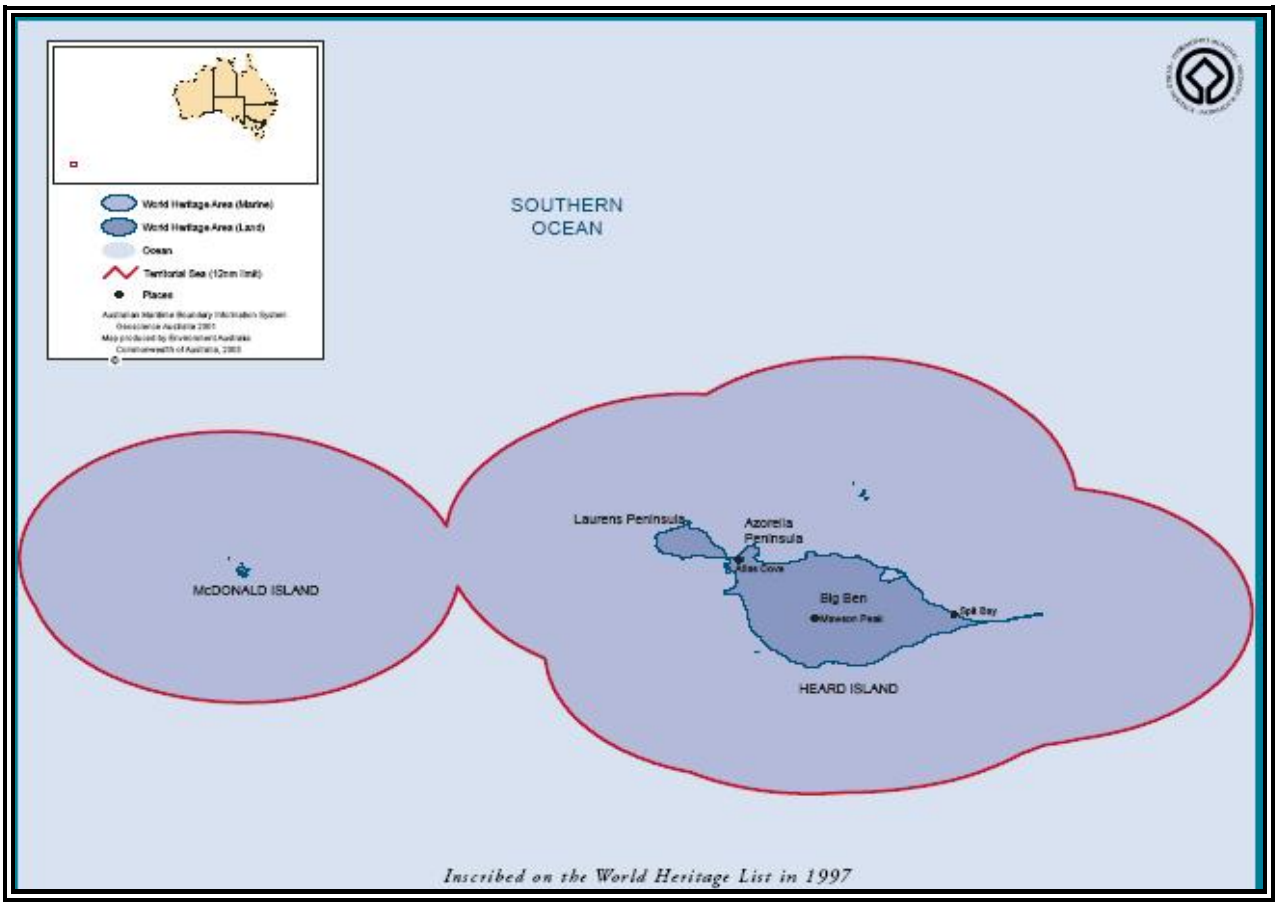

Figure 1- Heard Island / McDonald Island fisheries zones (HIMI)

Annex 2:

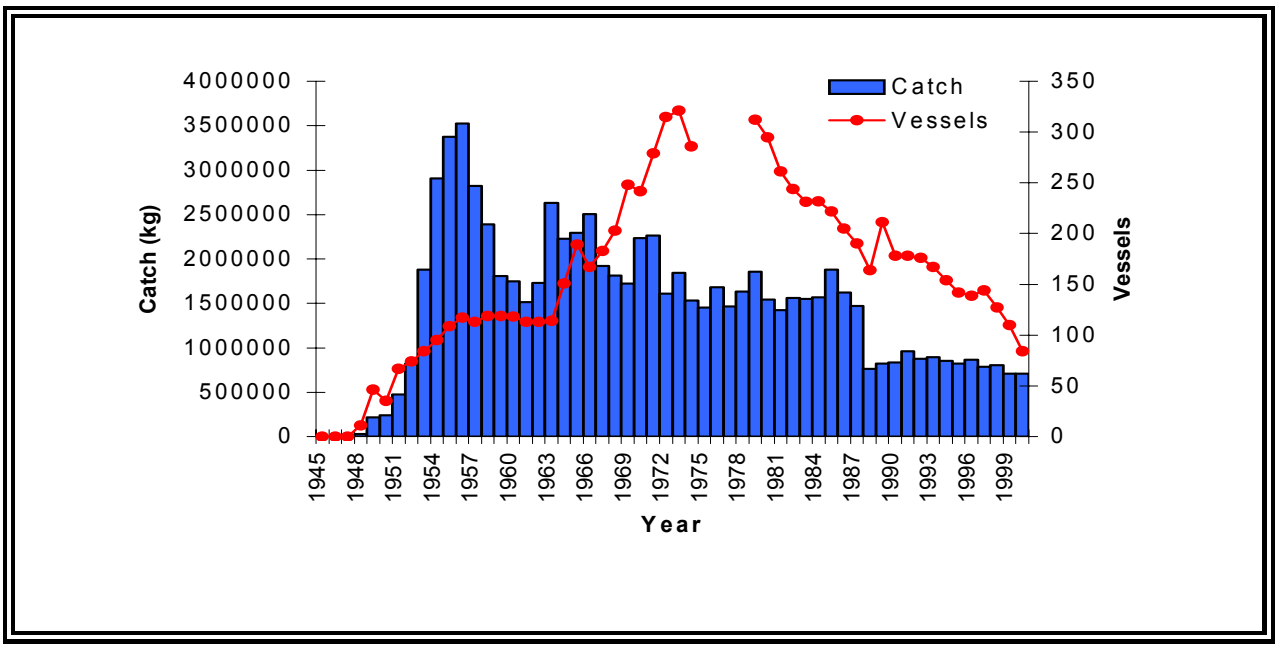

Figure 2 - CRA 8 catch and effort data

Annex 3:

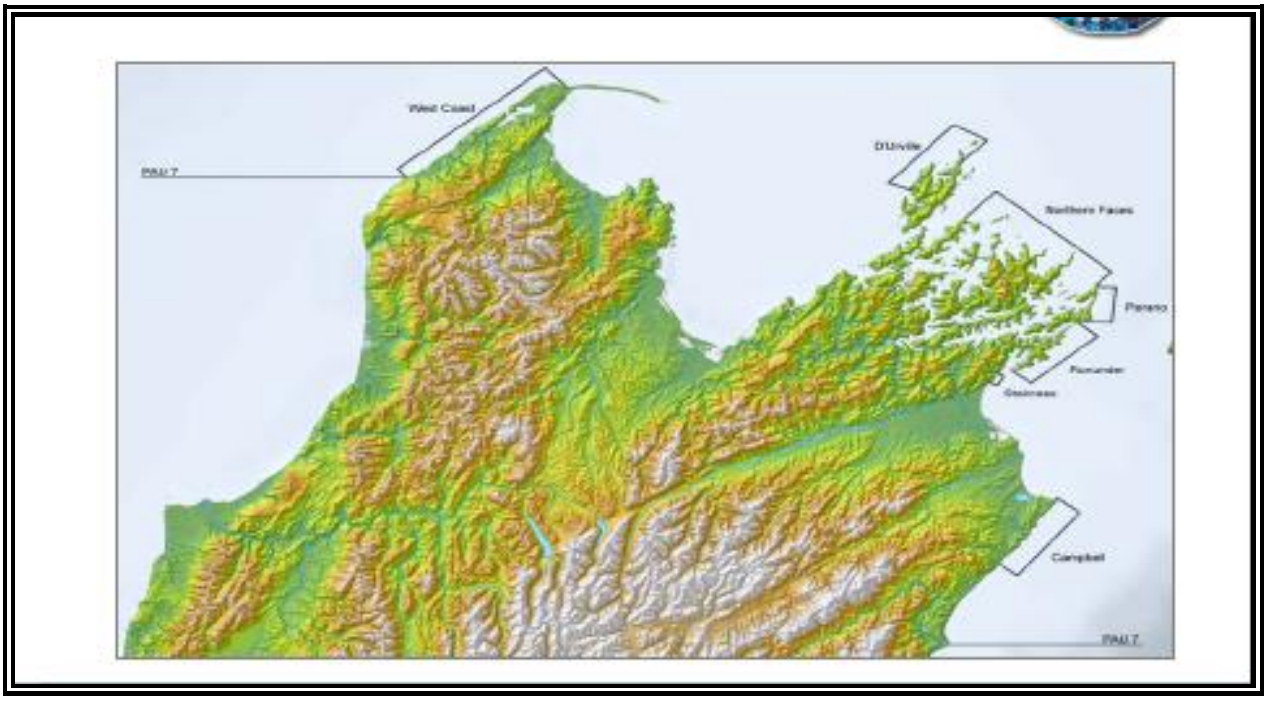

Figure 3 - PAU 7 fishery