Submission to the Senate Inquiry into **The Fisheries Quota System**

Introduction

This inquiry is about whether individual transferable quotas (ITQs) result in good fishing practice with reference to particular matters which I will consider later. I have been involved in fisheries management for more than 30 years, spending much of that time introducing total allowable catches (TACs) and ITQs to various Australian fisheries. I continue in that capacity today as a fisheries consultant. I am aware that not all commercial fisheries are suitable for ITQ management but given the title of this inquiry have restricted my commentary to those that are.

Please note I have not referenced anything I have said in this submission because much of it is personal experience and my recollection of events, some of which have not been publicly recorded.

Good commercial fishing practice results from the combined efforts of industry and government working across fisheries science, management, compliance and governance. Singling out the effects (good and bad) of ITQs on fishing practice is best done with reference to these four disciplines and the associated management tool of TACs. Before addressing the inquiry directly it is probably best to consider why ITQ management has become a preferred option for most Australian governments and with most of the commercial fisheries it has been applied to (sometimes after the fact).

How did ITQs arise?

In Australia, like much of the western world, most governments initially granted an unlimited number of commercial fishing licences – often for the first 50 to 100 years of commercial fishing. It was (and still is) a risky occupation which, until the advent of technologies like GPS and sounders in the 1970s and 80s, was highly reliant on the individual skill and knowledge of skippers and crew. Why governments did not limit licence numbers earlier can largely be attributed to a residual notion that fishery resources were almost infinite (or at least large and unquantified) and that taking any alternative approach meant intervention. If governments were to intervene questions of 'why' and 'where was that intervention leading' to would need to be answered. It was only from the late 1970s when fish stock collapses began to get the attention of the public and governments that the 'why' could be answered. As to where it was leading, that took a while longer.

A limit on the number of licences was the first of several steps taken in the late 1970s and 1980s to prevent further overfishing and it was at this point that monetary value started to accrue to a fishing licence. Soon after, area, boat and gear restrictions were added, forming up the first defined commercial fisheries within a jurisdiction. These restrictions were generally termed 'input controls' since they controlled the amounts of effort a fisher could use in a fishery and where they could do so. However, fishers are smart – give them an input control and they will find a way around it. Cutting the bows off boats, cramming large engines into small hulls and double lining the trawl gear with the legal mesh were just some of the ways the fishing industry responded in Australia. Overseas it sometimes got inventive and dangerous with boats being helicoptered on to fishing grounds to make the best of a fishing season that had been reduced to just a few days as a sustainability measure.

The other thing that input controls do is make fishers less efficient by forcing them to use more expensive and inefficient gear and boats to catch fish, so over the years profits in many fisheries declined and some fishers went broke. Furthermore, despite input controls the number of collapsed fish stocks kept rising. By the late 1980s many governments and some in industry were beginning to question the effectiveness of input controls but unravelling the complex set of rules that had been

created, and that the industry had built its business model around, meant that many governments continued to apply them well into the 21st century. However, some did not and instead took the significant step of applying the relatively new alternative of output controls.

Output controls have two main parts, the TAC and ITQs. TACs had been used since the 1980s in some fisheries (that were previously subject to input controls) to prevent overfishing at the fish stock level. These so-called Olympic TACs constrained catch but often made the economics of the fishery worse by creating a race for fish which usually crashed fish prices (so no/low profits) and made them seasonally unavailable (so many retailers who wanted continuity of supply would not buy them). In a departure from the past, the solutions of fish stock level individual quotas (IQs) and individual transferable quotas (ITQs) came from economics not biology. There was initial pushback from fishery agencies who were, and still are, dominated by staff with degrees in the biological sciences. The idea of effectively privatising commercial fishing access did not initially sit well with them although to a degree input controls had already done so. IQs/ITQs were initially not supported by industry as they forcibly constrained individual catches for the first time and introduced new concepts like quota trading and reconciliation of catch which were unfamiliar.

Understanding the substance of ITQs is necessary at this point. They are usually a statutory right with attributes such as secure ownership (their introduction saw a move from short term licencing to on-going fishing access), tradability (lease or buy/sell) and divisibility (you could trade in various amounts to suit your purpose). Some jurisdictions did put constraints on ITQs such as how much could be owned and/or who could own ITQ. Overall, these attributes gave them a greater value than holding one of a limited number of licences with approval to use certain gear types etc. It is important to also note that most ITQ allocation processes heavily weighted catch history at the fish stock level so those granted ITQ were most-often those who had a long-term reliance on the fishery.

The biggest hurdle facing both government and industry was how to transition from input to output controls (note that even output control fisheries do have some input controls such as areas closed to fishing). Both New Zealand and Australia experienced significant challenges because the sheer number of licences that had been granted was so large and the idea of allocating lots of small amounts of unviable ITQ under a sustainable TAC was not appealing. Therefore, almost all transitions to ITQ have a financial adjustment scheme associated with them. The aim of adjustment schemes is most-often to enable some industry members to leave the fishery with something in their pocket and enable those remaining to be viable enough to use the quota trading system to adjust their ITQ holdings to suit their business. Threats of, and actual, court actions by industry at this time are common as are threats to the staff involved in the ITQ allocation process.

Alongside these regulatory changes TAC/ITQ management had a significant effect on science and compliance. Fisheries managers needed to know what the level of sustainable catch was to set the TAC and compliance officers had to rethink their role as they moved from checking input controls (e.g. gear mesh size) to trying to making sure ITQs were being complied with. This meant the development of risk-based systems and intelligence driven compliance. It also fostered the use of technology, such as vessel monitoring systems (VMS) to ensure industry was working within the rules, e.g. accurately declaring where the catch was taken from and that it was decremented from ITQ on landing. VMS, it turned out, is also very useful for improving science by providing much finer scale spatial, catch and effort data.

Science faced the most difficult task since there is no such thing as absolute certainty about a fish stock's size or how quickly it is growing or shrinking. There also remained reliance on fisher supplied logbook data (the alternative of independent fishery surveys is expensive) as key inputs to stock

assessments. The main problem with logbook data is that any management changes can disrupt it by changing fisher behaviour (where, when and how they take the catch). The introduction of ITQs was one of the most significant disruptions. Scientists use a range of tools to try and 'standardise' logbook data so that it can be used as a long time series from which trends in stock status can be derived. However, a stock assessment is not much use unless you have government agreed reference points to quantify what makes a sustainable or unsustainable stock, otherwise everyone just argues over the results and TAC decisions are compromised. That is what often happened until 2007 when the Commonwealth Harvest Strategy Policy (HSP) finally addressed this by clearly stating limit and target reference points for fish stocks (the defaults are 20% of fish stock biomass as the limit reference point and 48% of biomass as the target). Many states/NT have followed this lead, noting target reference points tend to vary the most amongst jurisdictions.

There have been further Commonwealth government policy changes since 2007 and while they are not directly relevant to the use of ITQs both the updated Commonwealth HSP and Bycatch Policy are worth noting. The FRDC, ABARES and CSIRO provided considerable expertise and funding over many years to enable the development of these policies.

Particular references of the Inquiry

a. Good fishing practice that is ecologically sustainable with an economic dynamic that produces good community outcomes;

There are many ways you can manage a fishery to ensure it is ecologically sustainable but most result in economic hardship for the participants without periodic government intervention. A sustainable fishery is best achieved by having a science-based TAC set consistent with a publicly agreed harvest strategy that includes reference points. Having that TAC allocated to a limited set of individuals and the access right they hold having self-adjusting properties as the TAC rises and falls over the years are also essential. ITQs have been and still are the preferred way to achieve this.

The question of good community outcomes depends on which community you are referring to and over what time period. The first few years of ITQ management can be difficult as it has been generally been introduced with long-term sustainability in mind rather than as a short-term solution. The communities involved in fisheries include the harvesters, the associated seafood supply chain, local communities and the broader Australian community. Once you go beyond the harvest sector good outcomes get harder to measure since most communities have only a limited reliance on seafood as part of their overall economy. Even the supply chains entrain seafood from many fisheries (including overseas) making measuring the community effects of introducing ITQs (as opposed to another form management) complex.

Most published analyses have focussed on the harvest sector with the general conclusion that introducing ITQs is disruptive but has long term benefits. One of those benefits is enabling ITQ owners to be able to afford to retire from the fishery, the wealth from which goes back into the community. Another benefit is for fishers to be able to adjust their ITQ holdings to meet changing business needs which can affect local employment levels. A further benefit is to borrow money against the ITQ to upgrade boats and or fishing gear to improve catching efficiency which also has a community benefit. There are others.

b. How the current quota system affects community fishers;

I am assuming this is a reference to local owner-operator businesses as opposed to larger corporate fishing businesses and/or those who own quota but do not fish. Given quota allocations were largely based on catch history it was those fishers with a longstanding reliance on the fish stocks that were originally granted quota. It has since been their choice what they do with it. Many older quota owners chose to sell while others kept it in their business. The sale of quota attracts a range of buyers and in some fisheries there has been an aggregation of quota into fewer hands. Sometimes these are fishing companies and sometimes investors. This is no different from other parts of the Australian economy – agriculture, housing and forestry for example. ITQs are now a medium to long-term investment and as such owners have generally become supportive good science and regulation as these increase the likelihood of higher returns.

One matter that has arisen is changing relationship between those who own quota and those who catch the quota. Some fishers lease quota (and may own some or none) and other quota owners contract out the catching of their quota. Compliance has had to introduce vicarious liability laws to ensure owners, lessees and skippers collectively remain responsible for the catching of ITQ within the rules. There has also been a growing tendency for quota owners to use foreign labour on their boats because they are cheaper and regarded as more reliable than Australian labour. While the truth of this continues to be debated commercial fishing remains a risky occupation and many Australians can earn the same money elsewhere in the economy with less risk. Nonetheless in most fisheries owner-operators remain an important component of most Australian fisheries and the use of foreign labour also delivers community benefits through learning to live with diversity.

c. Whether the current system disempowers small fishers and benefits large interest groups;

Everyone has an equal opportunity to buy or lease ITQ, usually through a quota broker or similar. You do need a minimum amount of quota to make a business viable, so initial funding is required to purchase it as a new entrant. ITQ varies in price across both fisheries and jurisdictions. A rough rule of thumb is that ITQ is about three times its landed value (aka beach price) to buy. However, ITQ can be purchased in some fisheries for the beach price and in others it is up to 10 times the beach price. This variation can be put down mainly to the security provided by the regulatory scheme (including the power of political intervention) and expected future value of the catch.

ITQ has become a tradable asset with an income attached to it. Likewise, commercial fishing is a business involving quality control, marketing and retail. Because technology has made catching fish easier the experience and skill of fishers is relied on less. However, the vision of the independent owner operator with just their wits about them to take the catch remains the view some wish to have of the industry, but it only lives on in promotional material.

d. The enforceability of ecological value on the current system, and the current system's relationship to the health of the fisheries;

I really could not decipher this one, but my experience is that a well-managed TAC/ITQ fishery with appropriate spatial closures and wildlife mitigation has little impact on the marine environment. Setting the TAC based on good, peer reviewed science is paramount as is having VMS and either good observer or e-monitoring coverage (cameras on boats) to verify fisher logbooks.

The greatest risk to a well-managed fishery is climate change. This is being played out with an increasing number of fish stocks that, despite good science, management and compliance, are continuing to decline and/or not recover. We have known of this risk for decades but have found no

adequate solution to it in fisheries management. Eastern gemfish, blue warehou, eastern redfish and silver trevally are some examples of climate affected stocks from SE Australia. There are examples of similar declines elsewhere as well as examples of the shifting ranges of some species (e.g. snapper).

e. Whether the current system results in good fishing practice that is ecologically sustainable and economically dynamic, and produces good community outcomes;

The four legs of the fishery system 'stool' are ecological, economic, social and governance with ITQs main impacts being on the latter three (TACs are the main tool for ecological). There has historically been an understandable focus on ecology to ensure sustainable harvests. This has been accompanied by the opinion that such harvests have economic and social benefits, that is, businesses make some profits and people are employed. These benefits are less likely to happen if fish stocks become overfished which also negatively impacts the capital value of ITQs. When fisheries are ecologically well managed there can be a greater focus on economics and resource sharing. Maximising economic returns rather than catch tends to mean you leave more fish in the water (the default for maximum sustainable yield (catch) is 40% of initial fish stock biomass while it is 48% for maximum economic yield (net returns)), but there is an argument that buyers of fish and consumers benefit less as fewer fish harvested generally means higher prices. To make matters more interesting some specific fisheries (such as those in the Torres Strait) and in Queensland have a target reference point of 60% of initial fish stock biomass. This is to meet the aspirations of non-commercial fishers who highly value being able to easily catch a fish for recreational or cultural purposes. In such circumstances commercial fishers and consumers may miss out. For commercial fishers this can mean a lower trading value for ITQs and for consumers less, possibly more expensive, fish. Such are the governance trade-offs made by decision makers trying to optimise use of a finite resource for groups of stakeholders with different needs.

f. Any other related matters;

As I have no other matters to raise so will use this opportunity to summarise. ITQs are not perfect but they are the best option we currently have to allocate TACs that ensure sustainable catch levels for Australian fish stocks. ITQs are a long-term statutory right, the strength of which varies across Australia in accordance with the local regulatory scheme. Trading and leasing of ITQ has taken place in many fisheries over recent decades with their collective capital value in Australia now in the billions of dollars. Some have increased in value while others have declined. Appropriately the latter has happened most often when a fish stock has become overfished. This is a strong market signal to keep fish stocks healthy and helps drive responsible industry behaviour. TACs and ITQs continue to be allocated in several Australian jurisdictions following the widespread failure of input controls. ITQs do have shortcomings, including for new entrants, but overall they remain the best available choice to manage most Australian commercial fisheries.

I will finish by paraphrasing a well-known fisheries scientist who some years ago was talking about commercial fisheries – ***in fisheries management it appears to be our preference to try every form of input control first and only when they have all comprehensively failed and fish stocks have collapsed, or are on the verge of doing so, do we employ TACs and ITQs, and most-often they work!***

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