Submission to the Productivity Commission on its Draft Report on Marine Fisheries and Agriculture (October 2016)

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Introduction

The quota determination process for setting catch limits involving Individual Transferable Quotas (ITQs) is advocated in the Productivity Commission's *Marine Fisheries and Aquaculture Draft Report: Overview and Draft Recommendations*.

In this brief I reflect on my public sector experience with ITQs. My aim is to make the point that the ITQ approach for selected high value species can be a sensible regulatory choice when it is implemented as an economic incentive within an ecosystems-based sustainability framework. However, it is essential to take into account the very important qualifiers provided by Sumaila (2010) in a short paper, A Cautionary Note on Individual Transferable Quotas,[1] which I recommend to the Commission.

A second aim is to make the case that public administrators at the operational level can be hampered by the absence of a harvest strategy as well as by executive decisions that limit the potential for innovation and productivity improvement. My public sector experience suggests that more could be done to improve the productivity of public administrators in supporting an ITQ determination.

Background

There are three different markets in each of the NSW Abalone and Lobster ITQ commercial fisheries. One market is for shares of each fishery, that is, shares in the access to the fishery resource itself. This market represents an investment in the fishery analogous to an investment in shares of a stock listed company. Shares of each fishery can be bought and sold, leading to a capital investment in the fishery. Share price and annual share turnover can thus be an indicator of confidence or weakness in the fishery.

The second market is for quota, that is, the allocated amount of catch. This market provides a return on investment perhaps analogous to a dividend paid by the 'share managed fishery' depending on how well it is managed. Quota can be bought or sold creating a second market for shareholder' trades.

In addition, quota can be leased to other endorsed shareholders creating a third market for shareholders.

Shareholders thus have three markets to consider. They can buy or sell shares, buy or sell quota or they can lease quota. The more investment a shareholder makes in the fishery the greater the allocation of quota. Shareholders must

[1] Sumaila, U. R. 2010. A cautionary note on individual transferable quotas. *Ecology and Society* **15**(3): 36. [online] URL: http://www.ecologyandsociety.org/vol15/iss3/art36/

nevertheless have a minimum number of shares in the fishery for an endorsement to fish.

The overall quota allocation is provided annually by an independent Total Allowable Catch Committee (TACC) through a determination for each fishery involving shareholder and stakeholder consultations, and subject to Ministerial approval.

The Total Allowable Catch Committee Process

The NSW TACC consists of three independent experts (research/ stock assessment, management and economics). An open forum process is conducted by the Committee as part of a consultation with public administrators, shareholders and interested parties.

Commentary

1. In so far as the ITQ works well to reduce fishing pressure through adaptive management, the public policy and administrative cost required to guide decision making through the TACC process may exceed the direct economic value of catch of the two mentioned fisheries. At least four categories of costs need to be critically appraised and reported on by public sector staff: research/ stock assessment; compliance; management; and economic appraisal. The precise costs of doing this are not usually recorded by public sector administrations. A fuller cost accounting method would breakdown costs (often rolled up in salaries and overhead), or at least benchmark a method of tracking costs accurately), and in the longer term make the ITQ more viable as an approach to sustainable fishing.
2. More specifically, measuring the costs of the ITQ determination process would be a step towards controlling costs and understanding how innovation around data collection, interpretation and developing expertise in setting catch limits in the public sector could better support ITQ public administration. This would assist public administrators in delivering an ITQ determination that is proportional to the community value of the fishery.
3. Because many community values are difficult to measure, it is not practical to allocate fishing resources to the highest value uses across multiple competing parties. It is more practical to accept some non-economic values in the allocation decision – part of overall *governance* – because most 'uneconomic' fisheries cannot be closed given the social and economic impact on participants (lifestyle fishers still provide community benefits; commercial fishers may have debts to repay) (see also key points made by Sumaila (2010)).
4. Providing economic advice to the TACC can be constrained by an absence of information on what issues are driving or stalling the sale of shares and quota and the leasing of quota; and what if any policy setting could be changed to provide better signals to shareholders. This difficulty is further compounded by the significant efforts required in stock assessment research conducted by fisheries scientists. A standard of reporting needs to be developed to communicate the stock assessment information for policy makers (i.e., summary for policy makers). Although summaries are already provided there is no 'standard' for what needs to be reported and how, and

no guidelines to advise fisheries scientists in public administration roles how to communicate technical information. A harvest strategy might address this issue.

5. Public administrators need to place more attention to the geographic scale of policy settings based on fisheries research. The formidable cost of collecting independent information needs to be considered given new electronic data collection technologies (GIS; smart phone applications). Fishers could have a role in collecting and reporting geographic/spatial data in lieu of other subsidies. Compensation could be provided for accurate and timely data collection to fishers as shareholder managers of the resource.
6. On the matter of valuing access to fishing sectors, the public sector needs much better information than can be obtained from willingness to pay studies. Stakeholders want a deliberative economics through consultative processes rather than experts purporting to know something from constructed proxy values.
7. The ITQ should not be implemented as an enduring property right. Public administrators should include a sunset clause as part of governance arrangements (see Sumaila (2010) on this point).

Discussion and Recommendations

Public sector administrators need to consider the *governance* of a fishery and actors involved, not just stock assessment and economic returns. Productivity in adaptive management is not just about the behavour of harvesters in the ocean, it also needs to be about innovation in public administration. Too many layers of departmental management often prevent this innovation. An 'operations room' for a given fishery consisting of public administrators working as a team in stock assessment, fisheries management, compliance and economics would breakdown departmental silos. The operations team would need to have authority to contract for information from different sections of the responsible department (for stock assessment, economics, compliance, and management) and to set the 'reporting standard' around which this information is to be framed. The team would then prepare summary information for a TACC process.

RECOMMENDATIONS TO THE PRODUCTIVITY COMMISSION:

1. Promote more integrated decision making
   - The productivity of public administrators in implementing an ITQ can be hampered by departmental silos working in isolation; an 'operations room' for team collaboration may help to overcome this.
2. Evaluate the policy relevance of geographic scale
   - Policy settings at one scale (say offshore) may not be relevant to policy settings at another scale (say inshore). Need to consider scale in policy development.
3. Endorse the need for reporting standards
   - There is a need for (internal) reporting standards to streamline the technical information on which decisions are based. This could be developed through software tools and decision support systems.

Public sector administrators would benefit from a 'standard' and streamlined approach to data collection for fisheries quota determinations, that is, an agreed approach to reporting stock, economic, compliance and management data/information.

4. Promote new data collection technologies
   - GIS and smart phone applications for data collection could reduce the cost of data collection and information compilation
5. Secure more engagement in fisheries management from ITQ fishers
   - Pay fishers for data collection or waive other fees (collecting data at a lower cost is likely best placed in the hands of fishers (through GPS and other reporting technologies). Commercial fishers could be paid to report GPS data on catch as well as for economic data on share trades, quota purchases and leases.
6. Promote Fuller Cost Accounting in Public Administration
   - ITQs require significant administrative resources. Public administrators should understand the cost of delivery. Fuller cost accounting is one method to help identify costs and drive efficiencies within departments.

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