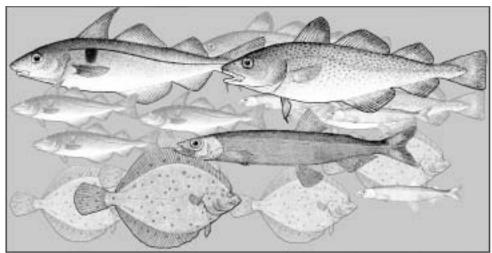
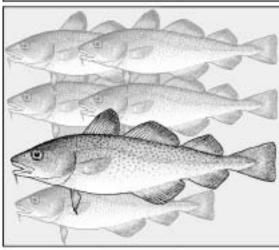
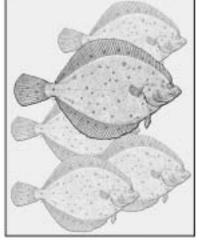
Case studies on the allocation of transferable quota rights in fisheries

FAO FISHERIES TECHNICAL PAPER

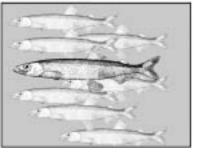
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Food and Agriculture Organization of the United Nations



Shotton, R. (ed.)

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ABSTRACT

This report, consisting of 23 studies, describes how the initial allocations of transferable fishing (effort) or fish (catch) quotas have been done by a variety of fisheries management regimes. The studies include two from the European Union (The UK and the Netherlands), Iceland and three descriptions from the Maritimes of Canada. Of the Canadian studies, that for herring provides an historical account of the introduction of quotas in the management procedures of the International Commission for the Northwest Atlantic (ICNAF), the precursor of the Northwest Atlantic Fisheries Organization (NAFO). Three studies are presented for fisheries along the eastern seaboard of the United States, though that for red snapper describes a fishery in which the actual implementation of the programme was thwarted by the imposition of the moratorium on Individual Transferable Quotas (ITQs).

The account for South Africa describes a difficult process in transition for a specific fishery. Nine accounts are included from Australia, two of which describe fisheries managed by the Commonwealth Government through the Australian Offshore Constitutional Settlement (the Northern Prawn Fishery and the fishery for southern bluefin tuna). The other six accounts of Australian experiences describe lobsters fisheries in Western Australia, South Australia and Tasmania and fisheries for abalone in Western Australia and Tasmania. Two accounts describe more traditional finfish fisheries, that of the Southeast Trawl Fishery and the trap and line fisheries in New South Wales.

An omnibus account is given for the allocation process of quotas in New Zealand. In the Western Pacific, accounts are given for the Pacific halibut and sablefish fisheries in Alaska, the variety of fisheries in British Columbia including these last two species and the fishery for Patagonian toothfish in Chile. The last account provides an historical account of quota allocation in pelagic whaling.

Keywords: Allocation of Quota, Initial Allocations, Fisheries Management, Property Rights, ITQs, Individual Transferable Quotas, Fisheries Policy, Fishery Access Rights

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FOREWORD

This FAO Fisheries Technical Paper achieves several objectives. First, it provides a further Case Study of Fisheries Management practices that were started with the publication of papers describing management of elasmobranch fisheries¹. Second, it continues the series of publications on the use of Rights-based Fisheries Management undertaken by FAO's Fisheries Department that, together with the publication of this paper's companion volume², will constitute six publications in total³. These reflect the growing importance of this topic to contemporary fisheries management.

The selection of the topic of the allocation of transferable quota-rights in fisheries was not a matter of happenstance. In moving towards, or adopting, rights-based management, how quota will be allocated is one of the earliest operational decisions that fisheries administrators face and it is inevitably controversial. Certainly, in my experience, it is a question that is upper-most in the minds of those fishermen who will be affected and thus is a major factor in their receptivity to the adoption of rights-based fisheries management approaches.

How quota is allocated has major social and commercial effects through the potential for redistributing wealth, both within the fishing sector and between that sector and society in general. Not surprisingly, fishermen often view the introduction of Rights-based Management with trepidation, if not hostility. Rightly, they see their immediate and longer-term employment at risk, if not personally, then at the level of their community, particularly if new-comers to the fishery are successful in securing significant amounts of catch quota from the initial holders. Further, it is glaringly obvious to them that the way their quota share is determined will directly affect their material prosperity. Even if the catch rights for the major species are appropriate, an unbalanced allocation of bycatch species may close their operations down if, in the future, remaining unfished quota does not reflect what is being hauled in over the side.

The danger exists, and experience shows, that a poorly-handled quota-allocation process can result in protracted hostility towards the management authority, and legal challenges that at a minimum, delay, if not nullify, the benefits to be obtained from the change in management approach. Numerous accounts show that once fishermen accept the quota allocation as being fair, or at least discover what they will get from the process, the hitherto opposition to a change in management approach is mollified, or disappears, particularly if there exists an appeal process that protects their interests or which can be used to their advantage.

Two fundamental reasons provided the stimulus for undertaking this documentation of existing national practices of the allocation of transferable fishing quota. First, there now exists considerable experience in the implementation of rights-based fisheries management, which had required the devising of principles and procedures for the allocation of fishing rights that were acceptable, or at least accepted, by the participating fishermen. Second, in my view, this aspect of fisheries management was poorly documented, though there were exceptions⁴. Certainly, how transferable quotas were, and could be, allocated, appears to be little known in the wider fisheries management community. For example, most involved in fisheries management are aware of the rights-based fisheries management programmes in New Zealand and Iceland, and perhaps in a few other countries such as the United States and Canada. But, in my experience, few have heard of, for example, the

Christy, F. 1982. Territorial use rights in marine fisheries: Definitions and Conditions. FAO Fish. Tech. Pap. No 227.

Shotton, R. (Ed.) 1999. Case studies of the management of elasmobranch fisheries. FAO Fish. Tech. Pap. No. 378, Vols 1 and 2.

² Shotton, R. (Ed.) 2001. Case Studies on the Effect of Transferable Quota Rights on Fishing Fleet Capacity and Concentration of Catch-Quota Ownership. FAO Fish. Tech. Pap. No. 412. 238pp.

³ Earlier FAO publications are:

FAO 1993. Papers presented at the FAO/Japan 1993. Expert Consultation on the Development of Community-Based Coastal Fishery Management Systems for Asia and the Pacific. *FAO Fish. Rep.* No. 474. Suppl. Vol. 1 & 2. FAO, Rome. pp. 689.

Morgan, G.R. 1997. Individual quota management in fisheries. Methodologies for determining catch quotas and initial allocations. FAO Fish. Tech. Pap. No. 371. 41pp.

Shotton, R. 2000 (Ed.). Use of property rights in fisheries management. Proceedings of the FishRights99 Conference, Fremantle, Western Australia. 11-19 November 1999. Vol.1: Mini-course lectures and Core Conference presentations. FAO Fish. Tech. Pap. 404/1 (342pp). Vol 2: Workshop presentations. FAO Fish. Tech. Pap. 404/2 (468pp).

⁴ See, for one notable case, Kaufmann, B., G. Geen and S. Sen 1999. Fish Futures. Individual Transferable Quotas in Fisheries. Fisheries Research and Development Corporation, Australia. 248pp.

rights-based programme in the unique Pilbara trap fishery⁵ in north-western Australia where the quota right pertains to the number of days-of-fishing permitted, or of the geoduck fishery⁶ in British Columbia, where the species prosecuted is an enormous sedentary mollusc, which can reach an age of 100 years. Yet these two unusual and interesting fisheries, no less than the many larger and better-known conventional trawl fisheries, had to pass through the process of an initial allocation of quota in the change of their management to a rights-based approach too, in the first case to an input-controlled fishery and in the second case, to one managed with output-controls.

Other papers in the compilation deal with rights-allocations that were among the first of such approaches in the management of industrial fisheries, but are now almost forgotten (see the contributions by Derrick Iles relating to the ICNAF/NAFO story and by Sidney Holt regarding the IWC). However, some of the almost intractable problems faced in these relatively ancient cases are being re-encountered in contemporary fisheries management. Sidney Holt, drawing in part on his personal involvement, has provided a fascinating account⁷ of how quotas were allocated in the pelagic whale fishery in the 1960s when the whaling nations finally publicly accepted (albeit not soon enough) that open-access whaling was destroying the once-great whale fisheries. His paper may provide some prescient experiences if, in the future, high-seas fisheries come under the authority of management commissions willing and able to implement transferability of quota rights based on market demand and not simply on national interests. This would not be without precedent as the case for the Pribiloff Islands Seal fishery in the first part of the last century shows.

As Sidney Holt notes⁸, allocation issues become contentious and difficult when the activities of those with the smallest allocations are threatened by a reduction in their allocation below the minimum needed to maintain their participation in a fishery. In the case of pelagic whaling, there was an economic minimum whale-quota required to mount a whaling expedition. In effort-regulated fisheries, such as the Australian Northern Prawn Fishery, where the allocation is based on gear dimension units, a minimum number of trawl head-rope length units is required in order to put a single trawl "over the side". In these cases, the operations of single-boat operators are vulnerable to management-enforced reductions in TACs or permitted levels of fishing effort, when their entitlement falls below the minimum needed to operate when a TAC (or effort-limit equivalent) must be reduced.

Another review of a fishery with an interesting historical perspective is that for the Canadian Maritimes Scotia-Fundy herring. Derrick Iles describes a first-hand account of the evolution of access-rights in a process that started in the 1970s. Contemporary workers take for granted the setting of TACs and the granting of quotas and Iles' account reminds us that these practices did not spring forth fully-formed, but rather had gestations tempered by international fisheries politics and the pursuit of national interests, often even then recognized as being of short-term duration. This story - the allocation of quotas for high seas fisheries - is as yet incomplete, and is one that many, including myself, believe should proceed as quickly as possible.

The perceptive reader will quickly realise from the papers in this collection what a wide range of fishery management situations exist, and the diversity of the approaches in the allocation of quota and in undertaking the introduction of rights-based management. Correspondingly, there has been an enormous variety in the operational details that have been embraced. Given the differing commercial, biological, historical, social, political and cultural circumstances among the various fisheries of the world, anything else would be surprising. But, for those looking for solutions to what may seem intractable management problems, the variety of situations in which the problems of implementing rights-based fisheries *have been solved* shows that this challenge can be met with a success that would might otherwise seem astounding.

The uniqueness of the various fisheries situations in which rights-based management has been implemented renders attempts at a single nostrum almost certainly dangerous. But, the experiences and lessons learnt from the various management regimes that have successfully implemented this management approach

⁵ See Cooper, L. and L. Joll 2000. The Scalefish Fisheries of Northern Western Australia – The Use of Transferable Effort Allocations in the Management of Multi-Species Scalefish Fisheries. pp 445 – 453. In Shotton, R. (Ed.) Use of property rights in fisheries management. Proceedings of the FishRights99 Conference. Fremantle, Western Australia, 11 - 19 November 1999. Workshop Presentations. FAO. Tech. Rep. No. 404/2, Rome, FAO.

⁶ See S. Heizer 2000. The Commercial Geoduck (*Panopea abrupta*) Fishery in British Columbia, Canada – An Operational Perspective of a Limited Entry Fishery with Individual Quotas. 226 – 233. Ibid.

⁷ A further bonus of this long paper is its fascinating and detailed account of the political and economic background to management events in this once important international high-seas fishery.

⁸ Holt, S. 2001. A comment on Tore Schweder's "Protecting whales by distorting uncertainty: non-precautionary mismanagement", Fisheries Research, **52**(3):227-230.

offers much to the manager who has been given the task of evaluating the options for implementing rights-based management methods. And, it is the desire to make this variety of experiences easily available that has been a major motive for me to compile this volume.

The reader may ask how the fisheries described in this Fisheries Technical Paper were selected for analysis, and why not some others. The answer is rather prosaic. While I have made a concerted effort to ensure that those management situations were selected that are, in my view, important in regard to their property-rights characteristics, equally important has been the availability of authors to undertake the studies and my ability to find them. Despite my efforts, I am sure that there are fascinating and relevant fishery situations that I have been unaware of. One such case that I became aware of in the closing stages of the collating this publication concerned the South East Trawl Fishery of Australia. Though I was aware of the management of the fishery in general terms, I was unaware of how interesting the introduction of ITQs into the fishery had been until I chanced upon a paper by Martin Exel and Barry Kaufmann. Rather than ignore this fishery, which I think has important lessons to offer, I elected myself to provide a literature review about it. Readers should thus be warned of the probable limitations of this particular study despite the kind assistance and comments of several of the Australians familiar with the story.

From the various accounts, certain aspects of the process of allocating quota-rights in fisheries have surprised me. In few of the fisheries described in this Paper does it appear that the authorities had clearly conceived, or documented, strategic objectives, or principles, that should guide the process of allocating fishing-rights. This is not necessarily a criticism, though I believe so doing would have both facilitated the process in many instances, and mitigated opposition to the management change. What does become apparent from the accounts is the need that the initial allocation process should satisfy, or at least mollify, the fishermen who clearly are the protagonists in the process, rather than to institutionalize them as antagonists. Some in management have viewed it as unimportant how the process of initial allocation is undertaken, or how the principles that guide the process are established, as long as the task is achieved (I have been a subscriber to this view). But, it is also apparent that dissatisfactions of the fishermen, as clients of the process, may not disappear with the completion of the quota-allocations and implementation of the Rights-based Fisheries Management process, if the process is flawed. And rarely do the circumstances exist (*i.e.* those governing the re-allocation or sale of rights) where a Coarsian view of the whole process can be unequivocally adopted. If this collection of case studies contributes to a better understanding of the principles, pitfalls and potential solutions of the process of allocating rights in fisheries, then its objectives will have been achieved.

The contributing authors were asked to attempt to follow a common format for their reports so as to facilitate a comparative analysis of different practices. But, at the same time they were told not to let such a request constrain how they treated the topic. I noted that I would rather have an appropriate discourse by the respective author(s) that was justified in terms of the unique problems of the fishery they were describing, than receive an account that was contrived, or limited, by following too closely my suggested structure. For this reason, readers must attempt to understand the differing conceptual elements and interpret the individual accounts in this light.

Once again, I must thank my secretary, **Marie-Thérèse Magnan**, for her enormous effort in preparing this Paper for publication, my colleague, **Mike Mann**, in ensuring that the editorial quality of the papers is again of the highest standard and **Françoise Schatto**, Publication Assistant, Fishery Information, Data and Statistics Unit for the difficult and unenviable responsibility of transforming the manuscript into the published document. I must also thank those who have selflessly made photo material available, usually to illustrate a paper that is not their own – I believe that such illustrations do much to bring these reports "to life" and emphasize that we are discussing real-life, and not academic, processes. Credit for the cover design and its preparation goes entirely to **Emanuela D'Antoni** of our Service.

Ross Shotton Marine Resources Service FAO, Rome.

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