

# Redistribution and Transformation in the South African Fishing Industry: The Case of the Squid Fishery

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**Abstract.** Political normalisation in South Africa during 1994, and the drafting of the Marine Living Resources Act 1998, led to the imperative to transform the fishing sector to more equitably reflect the racial demographics of the country. The squid fishery, like most other South African fisheries, has historically been dominated by white ownership of access rights and vessels. The squid fishery is an effort limited hand-jig fishery with each operator possessing permits for a certain number of individual fishers. Imposition of racial equity in the squid industry was attempted by means of simple redistribution of a proportion of fisher permits, away from existing boat owners to new entrants from historically disadvantaged communities. The lack of human skills and capital - which is a persistent legacy of apartheid - of the new entrants, coupled with one year tenure of permits, resulted in a market for paper permits, which were then leased back by boat owners who had lost them. The attempted “transformation” of the squid industry was thus, in effect, a revenue tax on established operators, and participation in the industry by new permit holders was minimal. However, many vessel owners who lost a proportion of their permitted crew in the redistribution process, did not lease back permits but simply went to sea with a full crew and fished illegally. The net result was an increase in total effort in the fishery threatening the sustainability of the resource. An incentive market based process of transformation is proposed. The paper argues that long term access rights on vessels can be used as a behavioral incentive for boat owners to internally transform their own ownership structures, and promote meaningful participation of previously disadvantaged individuals in the industry.

## 1. INTRODUCTION

The South African squid fishery is concentrated on the south east coast. It was first regulated in 1986 due to a large increase in effort and an influx of vessels into the fishing grounds (Augustyn et al, 1992). Effort is controlled by limiting the number of fishers, gear restrictions allowing the use of hand lines (jigs) only, and a closed season during spawning time. Initially the squid were caught using small 6-8m vessels, locally known as ski-boats, powered by twin outboard motors. Ski-boats could remain at sea for no more than a day. However, the fishery was rapidly capitalised resulting in the current predominance of relatively large (a fisher capacity of between 8 and 24 people) freezer boats that can remain at sea for a few weeks at a time. Some small ski-boats still remain, but their viability is questionable, as finance companies will not provide capital (Wesson, 1999). It is a relatively small fishery with approximately 2000 fishers and about 200 fishing boats and may be considered a stable, mature fishery.

Ownership of fishing boats, access rights, business and trading skills and processing plants were historically concentrated almost exclusively in the hands of individuals of European origin. People of African, Asian

and mixed origin were effectively excluded, although some exceptional individuals from these groups managed to continue fishing commercially. Political normalisation during 1994 led to a redrafting of many of the laws of the country including the Marine Living Resources Act of 1998. In fisheries, where the State effectively manages the resources on behalf of the public, a need to rapidly restructure the fishing sector in a more equitable way became important. The Marine Living Resources Act of 1998 provided policy guidelines for this. Essentially it rests on three pillars, namely, equity, sustainable resource use and industrial stability. Equitable participation in a fishery implies that ownership of capital or wealth, rather than income from resource rents should be redistributed.

Implementation of the new law, however, proved problematic as economically sound policies and strategies for transforming the fishing industry were not developed, capacity to lead the process was lacking within the Chief Directorate: Marine and Coastal Management, and a top-down style of implementation was adopted. The transformation process focused almost exclusively on the redistribution of access rights, usually in sub-economic fishing quota allocations. This led to a trade in “paper quotas” as most new rights holders did not have the means to participate in fishing activities. Thus a

redistribution of income, via an effective revenue tax, to individuals from previously disadvantaged groups occurred. Industrial instability emerged arising out of the uncertainty around rights' tenure, the extra expenses in leasing back "paper quotas" (revenue tax), court challenges to the redistribution process, and inadequate capacity within Government to administer the changes imposed on various fisheries. The squid industry reflects these processes and was in a state of crisis at the time of writing. It is briefly argued below, that if wealth or ownership of capital is transferred using government instituted incentives, and is allowed to operate through the market, the fishing industry, the squid fishery, will effectively and efficiently transform itself.

## **2. THE COMMAND AND CONTROL ATTEMPT AT REDISTRIBUTION IN THE SOUTH AFRICAN SQUID FISHERY**

In the South African squid industry effort is controlled by limiting fisher permits (that is the number of men permitted to fish by handline), which are issued annually by the Minister of Environmental Affairs and Tourism. At the beginning of the 1999/ 2000 fishing season the Minister sought to achieve a 20% redistribution of access rights and a 10% reduction in effort by reducing the number of fisher permits on each vessel by an average of 30%. Sub-economic numbers of fisher permits, that is less than a full vessel crew, were issued to successful new applicants for squid fishing rights from previously disadvantaged groups. The process occurred without effective consultation or endorsement from the squid industry represented by the South African Squid Management Industrial Association.

The immediate results were socio-economic disruption resulting from Government dictated crew lay-offs, as well as under crewed boats which were unable to operate profitably. Many simply went to sea with full crews and fished illegally, risking criminal sanction if caught. However, the sub-economic allocation of short term (one year) permits to new entrants created strong incentives for them to lease their rights back to the established firms, as the one year tenure of the permits effectively make access to capital impossible, and they lacked sufficient fisher permits to establish independent fishing operations. The socio-economic outcome of the 'paper permit' market was a redistribution of annual income from established companies, as opposed to sustainable wealth creation by meaningful participation in fishing operations by previously disadvantaged individuals. In effect, the redistribution process could be viewed as a revenue tax on established companies.

While the allocation of sub-economic numbers of fisher permits to new applicants potentially opened the way for the formation of joint ventures with established interests, meaningful participation in the industry by new permit holders was in most cases not achieved, as the majority of the new rights holders had no background or experience of the squid industry. The process of selecting new rights holders was thus deeply flawed, as there had been no control to determine whether or not the new entrants have been involved in, or are historically connected to, the fishery. In fact there had been a steady mushrooming of applications for squid fishing since the first set of permits were redistributed, and the process of rights allocation became something of a lottery.

A moral hazard problem (post-contractual opportunism) thus existed in that it made sense for the new entrants to lease their access rights back to the established interests. An unhappy marriage was thus forced between the new entrants from historically disadvantaged groups and the established interests in the squid industry. Problems that arose included racial tension, increased fishing effort due to the continued fishing of full crews on vessels which had had the number of fisher permits reduced, court challenges to Government, delayed issuing of permits, increased transaction costs, and a lack of confidence in the ability of Government to effectively administer the fishery.

Finally sustainable utilisation of the squid resource was threatened. Although the current scientific knowledge of the resource is good and acceptable stock assessment procedures are in place, the above factors have led to misbehavior and major compliance problems. The stock is thus under threat due to political and economic factors and not a lack of scientific knowledge.

The "command and control" intervention by Government to achieve equity in the squid fishing sector in effect failed in terms of all three key policy goals of the Living Marine Resources Act of 1998, visibly, racial equity in participation, industrial stability and sustainable resource utilisation.

In the remainder of this paper we consider an incentive based system of transformation in the squid industry based on market forces.

## **3. INCENTIVE BASED TRANSFORMATION**

Experience to date shows that the organisation of the fishery - in terms of getting the right mix of government control of the resource and allowing correct market solutions - is important for the success of a lasting

restitution and for industrial stability. In this respect, equitable ownership could be achieved through market interactions. Also, the system of resource management and administration as well as the mode of redistribution must be acceptable to the existing fishing companies, existing new entrants<sup>1</sup> and potential new entrants, which implies a greater devolution or sharing of managerial responsibility with the participants in the fishery. Care should also be taken to control for overcapitalization in the fishery. Because South Africa has a labour surplus economy, labour intensive biases should be part of the control structure.

Economic efficiency is achieved by allowing available capital, labour and biological resources to allocate themselves in the most efficient way. The most common method of achieving this is through transferable long term access rights which provides an incentive for participants to fish sustainably and maximize their economic rent from the resource. Due to the concentration of economic power in the hands of established companies, the goal of economic efficiency is in direct opposition to that of equity, as it is likely that the resource will reconcentrate in the hands of the already powerful and previously privileged South Africans of European origin. Economic efficiency thus must be partly sacrificed until equity is achieved.

A system of permitting boats rather than fishers, keeping the gear restrictions, using closed seasons to control effort, and providing equity incentives based on boat ownership is examined below. The criteria for being awarded a long term boat permit are that the boat should prove a full crew complement drawn from the existing pool of fisher permits (no additional effort is added) and ownership should be equitably distributed in racial terms. Essentially, the only measure that government needs to take to achieve equity, is to provide the incentive, namely, long term boat licences for good behavior and a suitable disincentive for bad behavior, for example, loss of access rights over a stipulated period of time for noncompliance with the equity criteria. However, this would be difficult to implement in "single family – one vessel" owned businesses. The sale of boats implies a transfer of access rights, thus for equitable transformation to establish itself the transfer of boats from one group of shareholders to another must be monitored.

Participation in the fishery is assured due to ownership of capital equipment. From the existing new entrant's point

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<sup>1</sup>New entrants are those individuals who have newly acquired access rights.

of view, this system should be favourable. New entrants holding small numbers of permits gain bargaining power as they hold a portion of the total pool of permits. Value is added to these predominantly 'paper permits' and partnership arrangements become feasible. From the established interest point of view, this has proved a favourable solution simply because it reduces the great uncertainty imposed by the other cost and control attempt at redistribution. Over-capitalization does not, and should not, become a problem as the number of boats is strictly controlled and limited. Gear restrictions work in conjunction with closed seasons (capital lies idle for longer periods and is therefore more expensive) to encourage labour intensive technologies. Economic efficiency is achievable with the sale of boats, but the trade in vessels should be controlled because of the efficiency/equity trade-off.

The distribution of access rights is therefore simplified and the number of permit allocations is reduced as there are far fewer boats than fishers. This also means that new individual permit applications are capped, freeing government employees to concentrate on the more important tasks necessary to control and manage the fishery<sup>2</sup>. As it is easier to monitor and log boats leaving and entering a harbour during closed seasons than to monitor the number of fishers on each boat at all times, the system lends itself to easy and cheap compliance control.

#### 4. CONCLUSION

Restructuring the South African fishing sector by means of simple reallocation of access rights by Government to previously disadvantaged groups has not worked and has not achieved the goals of the Living Marine Resource Act of 1998. Quite simply, it results in a risk free transfer of income, through an effective revenue tax, to individuals fortunate enough to have been granted access rights in a lottery type system. These individuals, or new entrants, often were not previously involved in the fishing sector, but most were astute, well informed and sufficiently well educated to take advantage of the changing political situation. Although these individual characteristics might be desirable to ensure a meaningful

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<sup>2</sup>A large portion of the Chief Directorate Marine and Coastal Management's scientific staff time is taken up with the assessment of new permit, and rights, applications. These people are not suitably qualified to do this work and given the number of new applicants every year the ability to verify the applications is virtually non-existent.

transformation, sub-economic bundles of rights and risk free access to income transfers work against the desired goal. An alternative approach, that advocates changing the point of resource control from fishers to boats and that sets up incentive based systems to ensure ownership transfer, is proposed as a solution to the redistribution problem. In addition it results in a favourable resolution to the requirements of the Act, it is acceptable to current boat owners, new entrants and fishers and it allows cheap and effective compliance measures.

This can only be achieved by means of greater industry participation in the restructuring process. Government appears to have recognized this and has now offered the squid industry the opportunity to write its own "rule book". The 'rule book' is a binding agreement defining all aspects of the management of the fishery, including the process and procedure for allocating rights, transformation and means to achieve stability. The draft 'rule book' compiled by the South African Squid Fishing Task Group (an industry body) recommends a vessel based system of rights allocation and a market incentive based system for achieving racial equity within the industry.

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